

**National Council for**



**Osteopathic Research**

# **Annual Report**

**2006 – 2007**

**October 2007**

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## **The Role of the National Council for Osteopathic Research (NCOR)**

This is the fourth Annual Report from the National Council for Osteopathic Research (NCOR) since its foundation in March, 2003. NCOR is an independent body that is supported by funding from the General Osteopathic Council (GOsC), the British Osteopathic Association (BOA) and each of the accredited colleges of osteopathy in the United Kingdom. Each of the stakeholders who contribute financially have representatives at NCOR. There are two additional representatives who represent private practitioners and NHS practitioners. The full constitution of NCOR is listed on page 83. All of the college representatives have experience within the field of osteopathic research and are currently involved in the academic institution they represent.

Since its foundation, NCOR has appointed a Chairperson, Professor Ann Moore. In October, 2003, NCOR held a strategic planning event to formalise its Vision and Mission statements (page 82) and its research strategy for the next five years. A Draft Strategic Plan was formally produced and can be found in the NCOR Annual Report for 2004/5 which is available on the NCOR website ([www.ncor.org.uk](http://www.ncor.org.uk)).

NCOR is based at the Clinical Research Centre in the School of Health Professions at the University of Brighton. The Chair is head of the Clinical Research Centre for Health Professions (CRC). A Research Officer, Carol Fawkes, was appointed in February, 2004 and is present at the CRC for four days per week. The CRC has also funded a new post of part time Senior Research Fellow in Osteopathy, which Dr Janine Leach took up in May, 2004.

The lifeblood of any therapeutic discipline lies in its ability to generate, refine and continuously test new knowledge. Such a commitment is a hallmark of a forward thinking and serious profession and ensures the protection of both patients and professionals. Researching osteopathic practice and learning from that research should be at the heart of the way the profession thinks; it is from this stance that NCOR was created. However, the NCOR approach is not prescriptive. NCOR aims to work with the profession to foster and encourage but not enforce research, and to meet the needs identified by the profession as a whole.

## **Report from the Chairman of the National Council of Osteopathic Research**

### **Report from the Chairman of the National Council for Osteopathic Research 2006-2007**

This has been a very interesting year with considerable activity for NCOR members, but especially for Carol Fawkes, NCOR's Research Officer and myself as Chair. Ongoing developments of the adverse events call with Steven Vogel as Lead, setting up an expert review system and NCOR Research Grants Governance Committee has taken up a considerable amount of time during the past year. Planning for the research day conference to be held within the tenth anniversary GOsC conference in February and the commencement of the standardised data collection project following discussions and re-submission of the protocol has taken up much of my time allocated to NCOR this year. The calendar of activities shown overleaf sets out other events which have taken place in detail. Meeting Edzard Ernst for the first time was an interesting experience in itself. I felt that our meeting was useful, having indicated to Professor Ernst the research developments that have and are occurring within the osteopathic profession. I think he was pleasantly surprised at the level of engagement osteopaths are having with research. At least there have been no direct literary criticisms of the osteopathic profession from the Exeter camp for the rest of this year.

The NCOR team has continued to work in partnership with Carol Fawkes taking a major lead in facilitating Hub activities and writing the regular research reports in the osteopath. The adverse events call for proposals has served a very useful purpose, as not only will important research be carried out into this needed area, but most importantly, a number of healthy research collaborations have been set up within the submission teams utilising the skills of senior academics and sharing expertise across OEIs. The review process worked well for the adverse events proposals and some innovative, well thought through and academically sound proposals have been approved for funding conditionally subject to more details being provided. NCOR will be considering its future structures and strategy at the next NCOR meeting in December as we approach our 5<sup>th</sup> year of activity in 2008.

I hope you enjoy reading this report.

**Professor Ann Moore**  
**Chair of the National council for Osteopathic Research.**

## Calendar of Activities 1st October, 2006 to 30<sup>th</sup> September, 2007.

|  |  |
|--|--|
| Monday 2 <sup>nd</sup> October, 2006   | NCOR meeting.  |
| Tuesday 10 <sup>th</sup> October       | Meeting with Professor Ernst, Exeter.  |
| Monday 30 <sup>th</sup> October        | Media training at GOsC.  |
| Monday 4 <sup>th</sup> December        | NCOR meeting.  |
| Monday 15 <sup>th</sup> January, 2007. | GOsC 10 <sup>th</sup> anniversary research conference meeting at Osteopathy House  |
| Thursday 18 <sup>th</sup> January      | Preparation of press response for Galloway Gazette   |
| Monday 12 <sup>th</sup> February       | Strategic planning event and NCOR meeting  |
| Monday 19 <sup>th</sup> February       | Announcement of call for proposals to look at adverse events associated with osteopathy.   |
| Monday 26 <sup>th</sup> February       | Conference planning event at GOsC  |
| Wednesday 21 <sup>st</sup> March       | Chair of “Who owns back pain?” debate  |
| Monday 23 <sup>rd</sup> April          | NCOR meeting   |
| Friday 25 <sup>th</sup> May            | First meeting of the NCOR Research Grants Governance Committee (RGGC) to look at outline adverse events proposals  |
| Wednesday 30 <sup>th</sup> May         | Full proposals for adverse events studies invited  |
| Monday 12 <sup>th</sup> July           | Response submitted for publication to <i>Journal of the Royal Society of Medicine</i> (and accepted) concerning paper on adverse events and spinal manipulation contributed by Professor Ernst |
| Tuesday 20 <sup>th</sup> July          | Announcement of call for posters for NCOR Research conference to be held on 1 <sup>st</sup> February, 2008   |
| Monday 9 <sup>th</sup> July            | NCOR meeting   |
| Monday 20 <sup>th</sup> August         | Closing date for submission of full adverse events proposals   |
| Monday 1 <sup>st</sup> October         | NCOR meeting   |
| Thursday 11 <sup>th</sup> October      | RGGC meeting to discuss full proposals and awarding of funding.  |
| 18 <sup>th</sup> October               | AE funding awards announced.   |

## Research Officer's Report

Since the last report was published, a great deal has been achieved by NCOR in meeting its stated objectives. The areas in which achievements have been made and where work is ongoing are described below.

**Osteopathic Research Evidence:** Considerable time continues to be spent trying to locate published and unpublished osteopathic research to populate the database of completed osteopathic research. Enquiries from osteopaths, higher education institutions (HEIs) and general practitioners, Primary Care Trusts (PCTs) and students at Osteopathic Educational Institutions (OEs) continue to be received. There has been a noticeable increase in the number of osteopaths who have been asked to give presentations at higher profile events to mixed professional groups. Additionally, increasing number of osteopaths have expressed an interest in producing contributions for the International Journal of Osteopathic Medicine (IJOM) and have requested background literature searches and assistance with preparation of their publications. The numbers of enquiries received during the past year from within and outside the profession totals 431.

I have also been fortunate to be asked once again to act as an external examiner at the final year student presentations at the British School of Osteopathy. The students continue to select an interesting range of challenging topics.

In response to growing concern voiced by members of the profession concerning information on risks associated with osteopathic treatment, NCOR has established an adverse events sub-group. This has been chaired by Steven Vogel, Head of Research at the British School of Osteopathy. Some members of NCOR and individuals from other osteopathic educational institutions (OEs) have attended the meetings. The work of the sub-group culminated in the announcement of a call for proposals on 20<sup>th</sup> February, 2007. A Research Grants Governance Committee (RGGC) was established to oversee the award of funding for the proposals and their progress monitoring. The RGGC met for the first time on 25<sup>th</sup> May, 2007. The award of funding will finally be announced on 18<sup>th</sup> October, 2007.

**Communication:** The NCOR website, launched in June, 2005 ([www.ncor.org.uk](http://www.ncor.org.uk)), is continually being populated with information that is useful for both practising osteopaths and osteopathic researchers.

The website is updated regularly to give current information about conferences, calls for papers for conferences and conference reports. Information concerning the dates of the research hub meetings and the topic area(s) being discussed or activity undertaken is also posted on the website. Articles on aspects of research that originally appeared in *The Osteopath* have been progressively placed on the website in PDF form. These will continue to be added as they are completed. Information concerning press responses that have been released throughout the year in response to articles in the *Journal of the Royal Society of Medicine* and the *Galloway Gazette* will also be added to the website.

*The Osteopath* and *Osteopathy Today* remain a source of communication for those osteopaths who do not have internet access. A series of articles for *The Osteopath* have been prepared throughout the past year concerning various aspects of evidence based practice. The titles and dates of the articles are given below:

Research hub round-up and COP conference report. 2006;9(9):22-23  
The Osteopathic management of patients during pregnancy. 2006;9(10):29-33.  
Research hub round-up and summaries of current research activity. 2007;10(1):32-37.  
An introduction to quantitative research. 2007;10(2):19-25.  
Back pain statistics. 2007;10(3):20-23.  
Standardised data collection for osteopathy. 2007;10(4):18-21  
Research news round-up. 2007;10(5):16-20.  
Spinal epidural for low back pain: a brief overview of the evidence. 2007;10(6): 16-20.  
Osteopathy: Art and Science- an international research conference. 2007;10(7): 17-21.  
Glucosamine: a brief overview of the evidence. 2007(8): 16-20.

**Research Hubs:** The network of research hubs have been active throughout the past year. The hubs have provided further feedback and begun to pilot the standardised data collection tool for osteopathy. A list of hub meeting dates and the activities undertaken are listed below. The hubs are steadily developing and are becoming integrated further into the OEIs Details of hub meetings can be found on the website [www.ncor.org.uk](http://www.ncor.org.uk).

#### **Oxford Hub:**

This group has met on Wednesday evenings at Mill Court Clinical Centre at Oxford Brookes University on 22-11-06, 28-02-07, 25-04-07, 27-07-06 and 12-09-07. It has worked on topic areas for the SDC tool, has engaged in some critical appraisal work and has worked on a project to attempt to create a generic case history card for osteopathy. The latter project has been undertaken in response to frequent criticism that appears concerning the standards of note-taking and recording of patient notes. The process of the development of the case history card is being written up for publication. The hub is benefitting from considerable contribution of Mr Jorge Esteves and Dr Delva Shamley who are utilising the research resources at Oxford Brookes University for the benefit of hub members.

#### **Leeds Hub:**

This group has met on Tuesday evenings at Leeds Metropolitan University on 14-11-06, 20-02-07, 24-04-07, 16-05-07 and 17-10-07. It has worked on the SDC project and has been engaged in workshops looking at literature search skills and critical appraisal looking at randomised controlled trials (RCTs) and systematic reviews. The hub members are currently trying to develop a patient satisfaction questionnaire for use in private practice.

#### **Exeter Hub:**

This group has met at Peninsula Medical School, Exeter on Saturday mornings on 09-01-06, 24-02-07, 19-05-07, 07-07-07 and 22-09-07. This group has followed up its involvement in the development of the SDC tool with workshops looking at the critical appraisal of osteopathic RCTs and examination and discussion of the BEAM trial in terms of clinical effectiveness, cost effectiveness and its implications for practice. The hub members have carried out a study examining consent in clinical practice. This study will be presented as a poster at the February 2008 research conference and is being prepared for publication. Hub members are also examining the literature concerning the use of patient information sheets in clinical practice.

#### **London Hub:**

This group remains the smallest of all the hubs. It has met at Osteopathy House and more recently at the British School of Osteopathy under the guidance of Steven Vogel on Tuesday evenings on 23-01-07, 03-04-07, 15-05-07, 20-06-07 and 19-09-07. It has been involved in developing the SDC tool and has since focussed on the development of critical appraisal skills.

#### **Bristol Hub:**

Since its involvement in the development of the SDC tool, the Bristol group has undertaken a variety of different activities. One of the members gave a case presentation concerning the osteopathic management of an acute gastrointestinal episode; this is in the process of being written up for the International Journal of Osteopathic Medicine (IJOM). Hub members have chosen to focus on looking at osteopathic research concerning different clinical issues: risk and manipulation, back pain in children and the osteopathic treatment of hypertension have all been discussed. Meetings have taken place in a group member's practice on Thursday evenings 23-11-06, 08-02-07, 29-03-07, 17-05-07, 21-06-07 and 27-09-07. More recently the hub members have undertaken small pilot projects looking at referral patterns by osteopaths. This study will be presented as a poster at the forthcoming research conference. Hub members are currently undertaking an audit to examine the demographic variation in patients presenting in osteopathic practice with low back and neck pain during the past 20 years.

#### **Sussex Hub (Haywards Heath):**

This group meets on Sunday mornings and has undertaken a variety of activities at its meetings on 03-12-07, 01-04-07, 22-07-07 and 30-09-07. Initial meetings were involved with the SDC too, but subsequent meetings have focussed on learning more about the stages of the research process, the development of critical appraisal skills and latterly the desire to develop a case series concerned with osteopathic treatment during pregnancy. The case series will be prepared for publication in IJOM and will be presented as a poster at the forthcoming research conference. A literature review looking at contraindications to osteopathic treatment is currently being undertaken.

#### **Scottish Groups:**

Further meetings with the Scottish hubs have yet to be arranged, but postal contact and email contact has been maintained to try and identify research topic areas that the groups are interested in developing.

The **Osteopathic Research Governance and Ethics Framework (RGF)** was completed in 2006. The framework has been used in osteopathic education institutions; a shorter summary has been prepared in a user friendly format for use by practising osteopaths to introduce them to the concept of a RGF. Both documents were updated in July, 2007 and are available on the NCOR website ([www.ncor.org.uk/rgf/index.htm](http://www.ncor.org.uk/rgf/index.htm)).

**Research Conferences:** An NCOR research conference has been planned for February 2008 as part of the three day celebrations to mark 10 years since the creation of the General Osteopathic Council (GOsC). The NCOR stakeholders provided a varied list of potential speakers. Meetings have been held on a small number of occasions with Brigid Tucker and her team from the communications department at the GOsC and the conference management team from Vista Conferences. The osteopathic research programme is now complete and work is being undertaken to ensure that all participants are fully prepared for their roles on the day.



**NCOR Representing Osteopathic Research:**

The National Electronic Library for Health: Complementary and Alternative Medicine section (NeLCAM) was officially launched on 15<sup>th</sup> May, 2006. I have been asked to represent osteopathy as associate editor and have attended their occasional board meetings throughout the year. A feature on osteopathy is being prepared with the approval of the NCOR stakeholders. A National Knowledge Week is being planned by the library for October, 2007 to be held in tandem with the conference of the Royal College of Physicians. The library is being increasingly used by all health professions even though the current information available is rather limited. This can be found at [www.library.nhs.uk/cam](http://www.library.nhs.uk/cam).

The Prince of Wales Foundation for Integrated Health has shifted its focus during the past year and no longer holds regular face to face meetings with representatives of complementary health professions. In order to retain contact between the professional group, an e-forum has been created.

I have been invited to attend meetings of the profession's insurers during the past year. A number of osteopaths have contacted the NCOR office concerned about insurance cover for osteopathic research. The meetings have allowed areas of concern for the profession and within the osteopathic educational institutions to be clarified and resolved. NCOR has produced information for the insurers to allow them to be satisfied that high standards of research practice are being observed when osteopaths contact them concerning research activities.

**Future Work:** A good deal of the groundwork in terms of strategic planning has been completed by NCOR. The NCOR strategic plan was reviewed by all stakeholders on 12<sup>th</sup> February, 2007. A series of priorities have been identified for the coming year focussing particularly on the completion and uploading of the research database.

An introductory research book for osteopaths has been proposed by adapting the material produced originally for The Osteopath. Sufficient material exists to produce an intermediate research book; a further publication focussing on the topic of practice audit is envisaged for the future.

The hub meetings have been productive in terms of research activity and a series of papers will be submitted for publication throughout late 2007 and early 2008. The hub members seemed to have enjoyed this involvement in research activity and it has provided a learning opportunity in relation to the research process. The profession appears to be slowly becoming more research positive and engaged in the research process.

**Carol Fawkes**  
**Research Development Officer**  
**NCOR**

## **Research Reports from the Osteopathic Educational Institutions in the United Kingdom.**

*The reports are printed in alphabetic order in the format and font supplied by each individual institution.*

### **British College of Osteopathic Medicine (BCOM)**



**RESEARCH REPORT  
2006 – 2007**

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## **INTRODUCTION TO RESEARCH AT BCOM**



Research at BCOM is well-developed with a dedicated department. Research teaching and learning meets or exceeds S2K expectations. Year 2 students are introduced to concepts of data-gathering in Exercise Physiology. In Years 2 and 3, Research Methodology introduces students to the principles of research design and methodology and more advanced concepts of data gathering and analyzing, culminating in the protocol. Students on all courses undertake process-orientated clinical research towards an agreed outcome -

dissertations which conform to HE conventions. BCOM initiated the International Conference on Advances in Osteopathic Research in 1999, hosting the sixth event in 2006. BCOM's scholarly activity includes regular publication in osteopathic and non-osteopathic journals as well presentations to conferences.

### **DEVELOPING THE RESEARCH BASE**

It is believed that the validation last year of the MOstMed will further enrich BCOM's research ethos and profile and encourage the growth of postgraduate research within Osteopathy. This year the Research Methodology course (3R1), historically a third-year module, was introduced to second-year students. This module has performed well but it became clear that the new BSc (Hons) Clinical Studies three-year programme (leading to the Most Med) requires an earlier exposure to this subject, to allow greater assimilation time and a longer period for data collection. Therefore all second-year students, not just those embarking on the MOstMed programme, will receive 3R1 lectures.

BCOM's commitment to Osteopathic research was further strengthened during 2006/7 by preparation of two grant applications, one on Adverse Events In Osteopathy then other on Bone Health Of Vegans.

### **THE FOUR MAIN PRIORITIES OF THE RESEARCH DEPARTMENT**

To gain external funding for institutional research programmes.

To enhance the profile of the International Conference on Advances in Osteopathic Research (ICAOR).

To promote collaborative research.

To increase the proportion of BCOM staff engaged in published research.

## **MAJOR COLLABORATIONS BY BCOM RESEARCH STAFF**

Collaboration on two projects is ongoing with the Institute of Child Health (ICH). Collaboration with the London College of Fashion (LCF) and University College London (UCL) is also continuing.

Also collaboration on research projects between the heads of research from the Osteopathic HEIs which was initiated by BCOM in April 2006, called the Research Leaders Group, which has a number of aims:

To foster research collaboration between HEIs.

To share published research so far.

To provide an information support network for UK institutions.

To identify priorities in research, develop workable protocols and carry out collaborative research.

To pool college resources for such projects.

To gain funding for particular projects.

To feedback progress to NCOR (National Council for Osteopathic Research) meetings.

To publish findings.

The Research Leaders have met on three occasions since the first meeting in April 2006 and are discussing a collaborative project aiming to use the standard data-collection form devised by NCOR and also a Delphi study questioning osteopaths on priorities in osteopathic research. Venues rotate as does the Chair.

## **FACILITIES**

### **Existing Equipment**

The laboratory consists of a range of state-of-the-art equipment, listed below, used by both students and staff for measuring various physiological functions. There is some allocation made for annual servicing of equipment.

Cybox Norm isokinetic dynamometer (upgrade of software in 2007)

Electromyograph associated with Cybox

Digital myograph isometric dynamometer

Hand-held dynamometer

BodPod body composition plethysmograph

Harpenden callipers

Laser Doppler Microflo DSP (peripheral blood flow)

RsScan Force plate

Treadmill

Three Exercise bikes

Cortex breath-by-breath analyser

Three Cubaclinical (osteoporotic fracture risk assessment using ultrasound)

BROM (Back range of motion)

CROM (Cervical range of motion)

Goniometers

Blood pressure monitors

Hydrotherapy suite: Scottish douche, temperature controlled foot, arm and sitz baths

## **STAFF RESEARCH ACTIVITY**

### **ONGOING STAFF PROJECTS**

#### **Fibre Composition Of The Hypoglossal Nerve And Its Relation To The Development Of Speech**

Lead: Dr Arjmand Saaid with Professor C Dean, University College London (UCL)

This is a comparative study, based on counting nerve fibres forming the hypoglossal nerve, taken from human cadavers at the UCL dissection room, comparing the average number with the fibre composition of hypoglossal nerves of non-human primates. So far, 30 human hypoglossal nerves have been dissected. All nerve specimens are sent for histological processing, using various histological stains and analysed in UCL laboratories.

#### **Analysis Of BCOM Clinic Data**

Lead: Dr Hinkley

Since October 2003, patient data has been entered onto a computer database, called DataEase. There are now in excess of 9000 consults on the system. Students and staff use this resource for research.

### **NEW AND UPCOMING PROJECTS**

#### **London Marathon Bone Health Study**

Lead: Dr Heather Hinkley and Dr Ian Drysdale



In 2004 the College undertook ultrasound assessments of the calcanei of 403 runners who completed the London Marathon compared to age- and gender-matched non-runners. The results showed greater BUA (Broadband Ultrasound Attenuation), which is a measure of the bone architecture, in the runners compared to age-matched normative values.

A paper of this work has been published in the *Journal of Clinical Densitometry* (2007)10, 2, 179-183.

It is intended to recruit novice runners aiming to run in the London 2008 marathon. Adverts were placed on the realbuzz.com website linked to the London marathon, which also gives access to 20,000 runners via a newsletter; the Vegan Society website; adverts in the Metro and Evening Standard newspapers and flyers included in packs being sent out to runners running for the charity Shelter. BUA assessment will be made throughout their training schedule (October 2007 to March 2008) and post-marathon. A number of other physiological measures will be investigated at the same time, e.g. body

composition using the BodPod, muscle strength using the Cybex and fluid balance. A published authority in body composition from the Institute of Child Health is acting as a consultant on this project. Ethical approval has been given for this project.



Cybex



BodPod

### **Bone Health Of Vegans**

Lead applicant: Dr Hinkley in conjunction with Dr Fewtrell and Dr Fuller from the Institute of Child Health (ICH)

This study is in collaboration with the MRC Childhood Nutrition Research Centre at ICH and a grant application is being submitted to the ARC (deadline 29th October 2007) for funding covering a period of three years. The proposal has been upgraded from last year's which was submitted to the National Osteoporosis Society but unfortunately was unsuccessful.

Representatives also attended the Bristol vegan fayre in June 2007 to continue to collect BUA and questionnaire data, started in 2006. 140 vegans were scanned. A number of subjects who had recently become vegan are also being followed up yearly.



CubaClinical measuring BUA of the calcaneus

### **Adverse events in osteopathy**

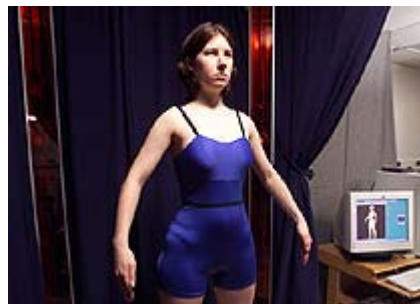
Lead applicant: Dr Hinkley

On 20<sup>th</sup> August a grant proposal was submitted to NCOR / GOsC for funding of a project entitled Investigating Osteopaths' Attitudes To Managing And Assessing Risk In Clinical Settings And Patients Experiences And Responses To Osteopathic Treatment. If funded, this project would start in mid November 2007 for a period of 20 months.

### **Use Of A 3D Body Scanner As An Anthropometric Tool**

Lead: Dr Drysdale and Dr Hinkley

Collaboration is continuing with the London College of Fashion for student dissertations. Data will be written up which has been collected from 100 students each on the BodPod and body scanner. Current discussions are also underway concerning a collaborative college project.



3D body scanner

## **FACULTY RESEARCH INTERESTS IN 2006-7**

### **Lead Researchers**

Anatomy in particular the neuroanatomy of the Hypoglossal nerve: Dr A Saaid / Dr IP Drysdale

Bone Health: Dr H Hinkley / Mrs Daphne Bird / Dr IP Drysdale

Clinic data analysis: Dr IP Drysdale / Dr H Hinkley

Effects of manipulation on nerve and muscle function: Dr M Janossa

## **STUDENT RESEARCH ACTIVITY**

### **UNDERGRADUATE RESEARCH**

46 fourth-year students submitted dissertations.

1. To compare the effect of a spinal mobilisation technique on two areas of the spine, in improving hip flexion ROM
2. Awareness of osteopathy in Murcia, Spain
3. The effect of naturopathic osteopathic treatment on lung function in a male patient with Cystic Fibrosis
4. A comparison of blood flow through the Achilles region post exercise in an archetypal rest posture and a conventional western seated posture: the potential mechanism for the onset and perpetuation of Achilles tendinopathies
5. A comparison of calcium intakes in BCOM clinic population with national diet nutrition survey programme results



6. A double-blind placebo-controlled investigation into a variant of applied kinesiology used in food sensitivity testing
7. Study comparing cervical range of motion after the application of a MET technique, with the cervical range of motion available after the application of a MET technique with motor imagery
8. Investigation into the Effect of osteopathic treatment combined with hot hydrotherapy on the strength of the wrist joint
9. A comparison of the effects of mobilisation techniques, high velocity low amplitude thrusts and Muscle energy techniques on cervical range of motion
10. A comparison of the effects of contrast hydrotherapy and soft-tissue recovery on muscle fatigue
11. The effect of increasing body weight on plantar pressure pattern and distribution: implications for the overweight and obese with abdominal fat distribution
12. The effect leg length discrepancy has on the maximum pressure distributed through the fore-foot, mid-foot and hind-foot
13. Does osteopathic training and experience augment tactile acuity? An investigation using static and moving 2-point discrimination and fine-surface texture discrimination as a measure
14. The effects of upper complex High Velocity Low Amplitude (HVLA) manipulation on postural sway & centre of gravity
15. Effects of hot hydrotherapy to the feet on subcutaneous blood flow to the hand
16. Study to compare the effect of motor imagery against thoracic spine HVLA on thoracic spine ROM
17. The effects of visceral osteopathy on gastrointestinal dysfunction and behaviour in autistic adolescents: A pilot study
18. Analysis of injuries and treatment modes of weightlifting subjects
19. Investigation into activation of vastus medialis
20. An investigation into the plantar pressure distribution of students and the effects of carrying a rucksack in various ways
21. Long term effect of tonic neck reflex on C spine and shoulder girdle mobility
22. Comparison of the effect of motor imagery against a high velocity thrust on cervical range of motion
23. A survey on the association of asthma and osteoporosis
24. The Effectiveness of HVT Compared to STT in the Range of Motion of the Lumbar Spine
25. The effect of Spiral Line myofascial release in relation to foot pronation or supination
26. The immediate and long term effects of contrast hot and cold bathing on joint and muscle function during flexion of the muscles of the hand
27. Effects of trunk hydrotherapy/sitz baths on basal lipolysis as measured by increased fat oxidation
28. Investigation and comparison of effect of cervical spine HVLA and cervical spine soft tissue inhibition on cutaneous blood flow to the lower limb
29. The effects of yoga on the menstrual cycle

30. Analysis of effect of thoracic mobility on lung function using asthmatic and asthmatic subjects
31. Suitability of BMI in assessing obesity in adults
32. Postnatal lumbar curvature and its relationship to breast volume
33. Effect of C2/C3 manipulation and hip flexion ROM
34. The common peroneal nerve: an EMG study
35. The Effects of Hydrotherapy on muscle fatigue
36. "Where and What Shall I Practise?" Decisional Parameters Governing Choice of Geographical Location and Practice Therapeutic Emphasis in the UK's Osteopathic Profession
37. A survey of osteopaths: what conditions are children presenting within their clinics?
38. The comparison of the Effects of Cervical Upper Complex Manipulation and Suboccipital Muscle Group Inhibition, as two Isolated Interventions on Standing Balance in Asymptomatic subjects
39. The effect of a recliner chair on superficial EMG lumbar activity
40. Osteoarthritis: A Survey of Public Awareness
41. Investigation into the effect of thoracic spine high velocity thrusts on cutaneous blood flow to the head
42. The affects of subliminal perception on cutaneous blood perfusion
43. The awareness of osteoporosis amongst Asian women in the UK and India
44. The awareness of osteopathy amongst the Greek population: a survey
45. An investigation into muscle energy technique on strength deficit of tibialis anterior
46. Comparison of postisometric relaxation MET and reciprocal inhibition MET applied to piriformis

3 additional students on the 5 year BOSTMed programme submitted papers. The titles of their projects were as follows:

1. The incidence of musculoskeletal pain in student guitarists.
2. Bone health of vegans.
3. To Assess the reliability of surface electromyography as a diagnostic tool.

## Results

17.4% of students achieved an A grade, 39.1% B, 32.6% C and 10.9% D. The average mark was 60% (range 40% to 76%) There were no referrals. This is broadly consistent with recent years, though there was a slight decrease in the numbers of student achieving the highest grade.

The average mark for the paper submitted by of three students on the five-year programme was 52%.

One student (title 17) is working towards submitting a paper to the International Journal of Osteopathic Medicine. Also two students (titles 16 and 17) have each submitted an abstract for the Chiropractic, Osteopathy and Physiotherapy student conference in London in September 2007. In addition one student from last year is writing up their dissertation on acromioclavicular Joint Dysfunction In Rugby Union Players for submission to IJOM.

## **POSTGRADUATE RESEARCH**

One student registered for a part-time MPhil/PhD in 2004 with the University of Westminster. The title is Visceral Osteopathy and Autism and the expected completion date is 2011.

## **BCOM AND THE OSTEOPATHIC RESEARCH COMMUNITY**

ICAOR 7 will be hosted at LECOM in Florida in September 2008. Details of content will be advertised at a later date.

## **EXTERNAL RESEARCH MEETINGS / TRAINING ATTENDED BY FACULTY**

Phoenix – Isokinetics bite size (Cybex upgrade) (March 2007)  
3<sup>rd</sup> International Evidence Based Conference (May 2007)  
American Society for Bone and Mineral Research (ASBMR) in Hawaii  
(16<sup>th</sup>–19<sup>th</sup> September) – abstract presented on Bone Health of Vegans

## **NATIONAL COUNCIL FOR OSTEOPATHIC RESEARCH**

BCOM is a stakeholder in this organisation, which has been set up to act as a unifying body for those parties engaged in Osteopathic research in the UK. Representatives from the Osteopathic Institutions, General Osteopathic Council and British Osteopathic Association are included on the Council. Meetings are held every two months at Osteopathy House. The Head of Research also attends a number of other meetings in addition to the Research Leaders' group (see earlier):

- Strategic planning day held in February 2007,
- Experienced Researchers' Group which first met in March 2007
- Research Governance Committee, first held in March 2007 and will meet three times per year, to review proposals submitted for grants.

The Head of Research will also be attending a new working group which has been set up and is due to meet in October 2007 to discuss a Delphi project, which will involve the Research Leaders Group.

## **BCOM SUBMISSIONS TO PERIODICALS**

### **Unusual bilateral termination of the cephalic vein**

**Saaid A. MD, PhD, Drysdale I. PhD and Agha H. MD. Submitted to Journal of Anatomy in April 2007.**

#### **Abstract**

A rare unusual bilateral termination of the cephalic vein was discovered during a routine cadaveric dissection. On the right side, the right cephalic vein was pursuing its normal course but much further medially, the distal segment had become distended and ended in the lowest part of the right internal jugular vein just before its union with the subclavian vein. On the left side the course of the left cephalic vein was different from the normal cephalic vein termination and the termination of the right cephalic vein of this cadaver. The left cephalic vein remained in close proximity to the anteroinferior border of the clavicle, coursing

medially to disappear deep under the clavicle, entering the left subclavian vein one inch away from the left internal jugular vein.

**Potential Benefits of Marathon Training on Bone Health as Assessed by Calcaneal Broadband Ultrasound Attenuation (BUA).**

**IP Drysdale, AL Collins, NJ Walters, D Bird, HJ Hinkley. Journal of Clinical Densitometry 10, 2, 179-183**

**Abstract:**

The purpose of this study was to determine calcaneal broadband ultrasound attenuation (BUA) of marathon race participants and compare this information with previously obtained normative data. BUA was assessed using the McCue CUBA clinical device in 217 male and 184 female runners, aged 20-93 years, participating in the 2004 Flora London Marathon. The normative data included 267 men and 334 women, aged 20-80 years. A significantly higher mean BUA ( $p < 0.001$ ) was observed for all the men (91.2, SD 18.2, dB/MHz) in the study compared to the women (81.6, SD 17.0, dB/MHz) and for the marathon runners compared to non-runners ( $p < 0.001$ ) in men (97.2, SD 17.6, dB/MHz and 87.7, SD 17.6, dB/MHz, respectively) and women (89.2, SD 14.2, dB/MHz and 77.4, SD 17.0, dB/MHz, respectively). A significant decline in BUA with age was observed in all males and females with the males starting from a higher baseline and with the rate of decline significantly ameliorated by marathon training (from -0.35 to -0.25db/MHz per year in men and -0.51 to -0.15db/MHz per year in women). This study provides observational evidence in support of the potential benefits of weight bearing exercise, such as marathon training and running, on BUA of the calcaneus, an index of bone mineral density.

**ABSTRACTS PRESENTED AT CONFERENCES BY BCOM**

**Bone Health Of Vegans**

**To be presented at ASBMR in Hawaii, September 16<sup>th</sup> to 19<sup>th</sup> 2007**

**H.J. Hinkley, I.P. Drysdale**

Public health strategies aimed at preventing osteoporosis through modifiable factors such as diet are currently under review. Vegans usually have a substantially lower calcium intake due to their lack of consumption of dairy products, unless they consume calcium-rich plant foods, which may result in lower bone mineral density and greater risk of osteoporosis. However, optimal acid/base balance may be a beneficial consequence of the absence of dietary meat and fish protein due to the reduction in acid load, which results in decreased mobilization of bone mineral, which lowers excretion of calcium in the urine and preserves the integrity of bone despite lower calcium intakes. Therefore, it is unclear as to whether or not the bone health of vegans is better or worse than that of comparable omnivores. A pilot study recruited age-matched females (20 to 44 years) to assess calcaneal Broadband Ultrasound Attenuation

(BUA; McCue CubaClinical), a measure of bone mineral density and structure of cancellous bone, in 60 vegans of mean body mass index (BMI) 23.1 (sd 5.9) kg/m<sup>2</sup> and compared this group with 110 female omnivores of mean BMI 22.0 (sd 2.7) kg/m<sup>2</sup>. The hypothesis tested was that the vegan diet was not detrimental to bone health as assessed by calcaneal BUA. Data were analysed using *t*-test and multiple linear regression analysis. Despite the slightly lower mean BUA of the vegans, no significant difference was observed in BUA between vegans (78.3 (sd 16.5) db/MHz) and omnivores (82.2 (sd 16.8) db/MHz). However, these preliminary findings were potentially confounded by large inter-individual variability in both BUA and weight (found previously to influence BUA: Drysdale et al, 2007), and weight was also observed to be slightly higher (non-significant) in the vegans (vegans, 63.0 (sd 15.8) kg; omnivores, 60.1 (sd 8.1) kg). Therefore, BUA was adjusted for weight. However, no significant difference was observed between the groups. The mutually exclusive variables of vegan and non-vegan were entered stepwise with weight, height and age into a multiple regression model. The vegan category was found to be an independent significant predictor of BUA along with weight, but not height or age. In conclusion, the hypothesis that the vegan diet does not adversely affect bone health is supported in part, although slightly confounded, by the results of this cross-sectional study, possibly due to the large extent of biological variability (BUA measurement variability, in house CV 2.3%). This indicates that further work would be of value to establish potential longitudinal effects of the vegan diet and any mechanisms involved in maintaining a healthy balance in bone metabolism. On the basis of this pilot study, a larger study is currently being undertaken in which a number of indices of bone mineral density are assessed along with other measures of health in general.

# **British School of Osteopathy**

## **Annual Report 2006-2007**

### **Research Centre, The British School of Osteopathy**

#### Contents

1. Report from the Head of Research
2. Aims of the centre
3. Staff
4. Grants
5. Recent publications
6. Conference papers and poster presentations
7. Undergraduate dissertations

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## **1. Report from the Head of Research**

### **Introduction**

Welcome to the 2006 – 2007 report from the Research Centre at the British School of Osteopathy. Research related activity continues to gain more and more importance for health professionals. Evidence based practice is underpinning standards for clinical governance in the wider sector and is increasingly being emphasised within osteopathy. The British School of Osteopathy is committed to supporting these developments within the profession at large and specifically within the school. Enhancing scholarship in our faculty is a key strategic aim of the institution in partnership with delivering research and building research capacity. The research team at the School play an important role in delivering this strategy and are supported by Dr David Langley (Director of Research and Enterprise Development, Bristol University) who is member of the School's Board of Directors.

Whilst recognising the strong role of declarative knowledge in osteopathy, the commitment is growing to appraise osteopathic practice and theory informed by applicable research findings. This forward thinking approach is being adopted by the School and is evidenced in the range of activities that are described in this report.

### **General activities.**

We have continued to extend the School's research profile with several new publications appearing in peer reviewed journals and successful presentation of work at osteopathic research conferences as well as at general medical conferences. A number of further papers are in preparation or under review.

One member of the team has completed his PhD studies successfully and a further two members of the team are in the process of finishing their doctoral studies and are anticipating submission in 2008. Results from these studies are beginning to be disseminated, by publication and by delivery

of seminars and conference presentations. The topics include the relationship of musculoskeletal injuries to variation in hormone levels in the menstrual cycle, the role of exercise therapy in osteopathic education and practice and the relationship between spinal motion patterns and back pain using dynamic MRI.

The team has a member appointed to the National Institute for Health and Clinical Excellence (NICE) guideline development group for low back pain, contributes a stakeholder representative to the National Council for Osteopathic Research and has membership of the International Osteopathic Alliance's research committee. We have also had a member of the team as a collaborator on an application for Arthritis Research Campaign Centre for Primary Care Musculoskeletal Science, led by Professors Underwood and Lamb from the University of Warwick.

We are delighted The Osteopathic Research and Treatment Bulletin (ORTB) has been taken on by the International Journal of Osteopathic Medicine and will be published as the Research and Treatment Bulletin within the journal.

In September 2007 we hosted the fourth annual Chiropractic, Osteopathy and Physiotherapy one-day multi-disciplinary undergraduate annual Conference: "Moving forward through research and practice". The conference is run in collaboration with the Anglo-European College of Chiropractic and the University of Brighton. As well as the thirty two original research presentations, two keynote speakers with international research reputations in musculoskeletal health care presented on topics of importance to all three professions.

Members of the team have contributed to a total eleven grant applications over the year and have had some success. We continue to contribute to the wider academic community and have reviewed papers for national and international journals.

### **Specific research projects**

The internally funded recruitment and admissions audit project is now completed and the results are being written up. Findings are scheduled to be presented at the Osteopathic Learning and Practice Conference, 3 February 2008, London.

We gained a small Research Informed Teaching grant of £1,500 funded by the University of Bedfordshire. The study will identify scholarly activity within the BSO clinic and academic faculty. A questionnaire has been developed by the research department that will identify interest and activity amongst staff. This will be followed up by interviews with faculty to gain an understanding on how scholarship can inform teaching. The work will have implications for curriculum development. A strategy document informed by the research will be produced in June 2008. The results of the study will be published and presented at workshops and conferences.

A further Research Informed Teaching grant of £10,000 has been granted to the research team: Work-Related Attitudes and Behaviour in Faculty Clinicians Treating Back Pain: Narrowing the Knowledge Gap between Evidence and Teaching. The study will be completed in 2009. The funding will support staff in expanding their research capabilities and outputs within their specialist subject area and to encourage staff to actively consider how their research impacts on the curriculum and the learning experience of students. Students and staff at the BSO will be actively engaged in the research process and journal clubs will be set up to discuss literature relevant to the study. The results of the study will also be published and presented at workshops and conferences.

We were successful with one of three applications to the NCOR call for research concerning adverse events. £140,375 has been awarded to fund: "Investigating osteopaths' attitudes to managing and assessing risk in clinical settings and patients. Experiences and responses to

osteopathic treatment.” The study will be conducted over 2008 - 2009. The overall purpose of the proposed project is to provide a coherent description of UK osteopaths’ risk assessment, and risk management; to document reported adverse events and treatment reactions in patients; to deliver a model of practitioners’ and patients’ perceptions and beliefs about adverse events and treatment reactions. In addition the short term follow up of patients will enable a narrative evaluation of the comparative risks and benefits of osteopathic treatment.

We have completed data collection from a series of focus groups exploring the range and quality of student clinical learning at the BSO. The initial results will be presented at Osteopathic Learning and Practice Conference, 3 February 2008, London. Further analysis and write up is ongoing.

Recruitment is concluded with the MRI study funded by BackCare, investigating fear of movement and brain activity in people with long term back pain. The study is led by Dr Pincus at Royal Holloway, University of London and analysis is ongoing.

We have acquired equipment to measure pressure used during palpation thanks to a donation from funds generated by a charitable event organised by Dr Stephen Sandler.

## **Future**

We are pleased that more and more members of our faculty are engaging in research some of which are in part fulfilment of post graduate studies; others are pursuing research relating to their role as educators. We are in the process of further developing our Research and Scholarship Strategies and anticipate their publication in 2008. We are planning to organise lunch time seminars over 2008 to disseminate findings of our work more effectively to students and colleagues within the BSO. Faculty have asked for more research methods workshops and we are in the process of developing training focused on supporting staff with research as well as supervising undergraduate research work. Our faculty will also be invited to attend journal clubs and we working towards supporting and encouraging better attendance at the London NCOR research hub.

Steven Vogel,  
Head of Research

Friday, 4<sup>th</sup> January 2008

## **2. Aims of the centre**

The centre and related activity in the School aims to:

- deliver high quality research
- promote and develop scholarship at all levels
- build successful collaborations with other institutions

## **3. Faculty**

### **Research Centre**

**Paul D Blanchard, DO, PGDip**

Senior Clinical Tutor; Research Fellow; Director - Chapman Clinic.

**Kevin Brownhill, BSc (Ost)**



Lecturer, statistics

**Jo Zamani BSc(Hons), MSc, PgCert**

Head of Postgraduate studies, Senior Research Fellow

**Roberta Herrick, BSc(Hons), MSc Psychological Research Methods**

Research Officer, BSO Research Ethics Committee Secretary

**Tamar Pincus BSc(Hons), MSc, MPhil, PhD**

Associate Professor

**Steven Vogel, DO**

Head of Research

### **Undergraduate research teaching and support team**

**Amanda Sampson BEd, PhD**

Area of Studies Manager

**Mark Waters BA(Hons) PGCE**

Area of Studies Manager

**Hillary Abbey DO, MSc**

Academic Advisor

**Lorraine Nanke BSc, MSc, PhD**

Lecturer Research Methods

**Kevin Brownhill BSc Ost**

Lecturer Statistics

**Paul Blanchard DO, PGDip**

Academic Advisor

**Tamar Pincus BSc(Hons), MSc, MPhil, PhD**

Associate Professor

**Melanie Simpson BSc Hons, PhD**

Undergraduate Research Projects Officer

### **Postgraduate research teaching and support team**

**Jo Zamani BSc(Hons), MSc, PgCert**

Head of Postgraduate studies, Senior Research Fellow

**Tamar Pincus BSc(Hons), MSc, MPhil, PhD**

Associate Professor

**Steven Vogel, DO**

Head of Research

#### **4. Grants**

2008-10 **£140000. Vogel, S.,** Pincus, T., Underwood, M., Eldridge, S. NCOR. Investigating osteopaths' attitudes to managing and assessing risk in clinical settings and patients' experience and responses to osteopathic treatment.

2008-09 **£10000 Herrick, R.,** Vogel, S., Pincus, T., Zamani, J. University of Bedfordshire, Work-related attitudes and behavior in faculty clinicians treating back pain: Narrowing the knowledge gap between evidence and teaching.

2008 **£1500. Potter, S.** Blanchard, P., Herrick, R., Zamani, J., & Vogel, S. University of Bedfordshire, The relationship between teaching, research and scholarship at the British School of Osteopathy

2006 **£6912. Vogel (applicant),** Dear, J., Tyreman, S., Hunt, C. The British School of Osteopathy, Predictors of educational achievement and retention in undergraduate student osteopaths

2005-06 **£7400. Pincus, T.,** British Academy, MMICS, Systematic review of psychosocial measurements

2005-06 **£4400. Pincus,T,** BackCare, MMICS: The Multidisciplinary Multinational Inception Cohort Study,

2005-06 **£7400, Pincus, T. (applicant),** Vogel, S. and Williams, BackCare, DAPOS: Developing an interactive website to further research on the DAPOS, and testing the DAPOS in Primary Care.

#### **5. Recent Publications 2006-2007**

##### **In preparation**

Blanchard, P. (In Prep.) A descriptive account of the development of an osteopathic service within a hospital HIV day care centre.

Vogel, S., Herrick, R., Zamani J., Kakar, A., Brownhill, K., Pincus T. (In Prep). Predicting academic achievement of osteopathy students from preadmission data.

Vogel, S., Herrick, R. (In Prep). GOsC Osteopaths Profile Report.

Zamani, J. (In Prep). Exploring exercise content in UK osteopathic curricula. A study of osteopathic students and faculty.

##### **Under Review**

Chandler, D., & Zamani, J. (Under Review). Osteopathic Management of Patients with diabetic foot complications. *IJOM*

Clift-Williams, D., & Zamani, J. (Under review). A pilot study to investigate the relationship between physiological and psychological benefits of specific and general exercise. *IJOM*

##### **2007**

Zamani, J., Vogel, S., Moore, A., & Lucas, K (2007). Analysis of exercise content in undergraduate osteopathic education – A content analysis of UK curricula. *International Journal of Osteopathic Medicine* (10), 97-103.

Pincus, T., R. Santos and S. Morley (2007). Depressed cognitions in chronic pain patients are focused on health: evidence from a sentence completion task. *Pain*, 130(1-2): 84-92.

Pincus, T., N. Foster, E., S. Vogel, R. Santos, A. Breen and M. Underwood (2007). Attitudes to back pain amongst musculoskeletal practitioners: a comparison of professional groups and practice settings using the ABS- mp. *Manual therapy*, 12(2): 167-75.

Parsons, S., G. Harding, A. Breen, N. Foster, T. Pincus, S. Vogel and M. Underwood (2007). The influence of patients' and primary care practitioners' beliefs and expectations about chronic musculoskeletal pain on the process of care: a systematic review of qualitative studies. *The Clinical journal of pain*, 23(1): 91-8.

Parsons, S., A. Breen, N. Foster, L. Letley, T. Pincus, S. Vogel and M. Underwood (2007). Prevalence and comparative troublesomeness by age of musculoskeletal pain in different body locations. *Family Practice* (epub: 29 6 2007).

Dear, J. and M. Underwood (2007). What is the role of exercise in the prevention of low back pain in clinical evidence based sport medicine. *Evidence Based Sports Medicine*. D. MacAuley and T. Best. London, Blackwell Publishing: Chapter 13.

Carnes, D., S. Parsons, D. Ashby, A. Breen, N. E. Foster, T. Pincus, S. Vogel and M. Underwood (2007). Chronic musculoskeletal pain rarely presents in a single body site: results from a UK population study. *Rheumatology (Oxford England)* 46(7): 1168-70.

Brownhill, K. (2007). Comments on 'Spinal manipulation in patients with disc herniation: A critical review of risk and benefit'. *International Journal of Osteopathic Medicine*, 10(1): 29-23.

Brownhill, K. (2007). Back pain and the homoeostatic requirements of the spinal system. *International Journal of Osteopathic Medicine*, 10(1): 18-23.

## 2006

Evans, D.W., & Breen, A.C. (2006). A biomechanical model for efficient cavitation production during spinal manipulation: pre-thrust phase and the neutral zone. *Journal of Manipulative and Physiological Therapeutics*. 29(1), 72-82.

Parsons, S., Carnes, D., Pincus, T., Foster, N., Breen, A., Vogel, S., & Underwood, M. (2006). Measuring troublesomeness of chronic pain by location. *BMC musculoskeletal disorders* (electronic resource, epub), 7, 34.

Pincus, T. (2006). Osteopathy and pain: Does psychology matter? *International Journal of Osteopathic Medicine*, 9(2), 47-48

Pincus, T., S. Vogel, R. Santos, A. Breen, N. Foster and M. Underwood (2006). "The attitudes to back pain scale in musculoskeletal practitioners ABS-mp: the development and testing of a new questionnaire." *The Clinical journal of pain* 22(4): 378-86.

Pincus, T., Vogel, S., Breen, A., Foster, N., & Underwood, M. (2006). Persistent back pain? Why do physical therapy clinicians continue treatment? A Mixed methods study of chiropractors, osteopaths and physiotherapists., *European Journal of Pain*, 10(1), 67-76.

Pincus, T., Vogel, S., Field, A., & Burton, A.K. (2006). Fear-avoidance and prognosis in back pain: a systematic review and synthesis of current evidence. *Arthritis and Rheumatism*, 54(12), 3999-4010.

Pincus, T., Vogel, S., Santos, R., Breen, A., Foster, N., Underwood, M. (2006). The attitudes to back pain scale in musculoskeletal practitioners (ABS-mp); the development and testing of a new questionnaire. *The Clinical Journal of Pain*. 22(4), 378-86.

Tyreman, S. (2006). Causes of illness in clinical practice: A conceptual exploration. *Medicine, Health Care and Philosophy*, 9, 285-91.

Vogel, S., Pincus, T., Foster, N.E., Breen A.C., & Underwood, M. (2006). Attitudes to back pain amongst musculoskeletal practitioners: differences and similarities between professional groups and practice settings using the Attitudes to Back Pain Scale—Musculoskeletal Practitioners (ABS-mp). *International Journal of Osteopathic Medicine*, 9(1), 39 Abstract from ICAOR conference.

Breen, A., S. Vogel, T. Pincus, N. Foster and M. Underwood (2006). Systematic review of spinal manipulation: A balanced review of evidence? *Journal of the Royal Society of Medicine*, 99(6): 277.

## **6. Conference Presentations, Posters**

2007

### **Vogel, S.**

Vogel, S. (2007) Can practitioners' behaviour towards back pain be changed? A randomised controlled trial with physiotherapists, osteopaths and chiropractors. World Physical Therapy 15<sup>th</sup> International WCPT Congress, Vancouver, Canada, 2-6 June 2007.

Vogel, S. (2007) Attitudes to back pain amongst musculoskeletal practitioners: A comparison of UK professional groups and practice settings using the Abs-mp. World Physical Therapy 15<sup>th</sup> International WCPT Congress, Vancouver, Canada, 2-6 June 2007.

2006

### **Evans D**

Evans, D. Foster, N.E., Vogel, S., Breen, A.C., Underwood, M. & Pincus, T. (2006) Can practitioners' behaviour towards low back pain be changed? Results of a randomised controlled trial of a contextualised educational package. Primary Care Research on Low Back Pain, Amsterdam International Forum VIII, Amsterdam, The Netherlands, 8-10 June

### **Pincus T**

Pincus, T., Santos, R., Breen, A., Burton, K., & Underwood, M. (2006). A proposal for a minimal comprehensive list of factors for prospective cohorts in back pain; the multinational musculoskeletal inception cohort study statement. Annual General Meeting, The Society for Back Pain Research, Gisborough, North Yorkshire, UK, 2-3, November 2006.

Pincus, T., Foster, N.E., Vogel, S., Breen, A.C., & Underwood, M. (2006) Attitudes to back pain amongst musculoskeletal practitioners: Differences between professional groups and practice settings using the ABS-MP. Primary Care Research on Low Back Pain, Amsterdam International Forum VIII, Amsterdam, The Netherlands, 8-10 June

### **Dear J**

Dear, J., Vogel, S., Moore, A. & Lucas, K. (2006) Poster Presentation - Exploring Exercise content in the osteopathic curricula – a study of UK osteopathic faculty and students. International Conference on Advances in Osteopathic Research, British College of Osteopathic Medicine, London, April 2006

### **Invited and keynote lectures**

#### **2007**

##### **Pincus, T.**

Pincus, T. (2007). Back Pain – Identifying patients who do not recover regardless of treatment. 4<sup>th</sup> Chiropractic, Osteopathy and Physiotherapy Annual Conference: “Moving forward through research and practice”, British School of Osteopathy, 29 September 2007

Pincus, T. (2007). Measuring and addressing comorbidity in back pain. Palma International Forum IX. Primary Care Research On Low Back Pain, Palma de Mallorca, Spain, 4-6, October 2007.

##### **Vogel, S.**

Vogel, S. (2007) Treating the neck – Adverse events or normal reaction? Unanswered questions, Legal and Clinical Issues with Cervical Spine Manipulation, School of Medicine, University of Birmingham, 19 October 2007.

#### **2006**

##### **Vogel, S.**

Vogel, S. (2006) Scope of Practice Europe, UK and New Zealand – a discussion: Osteopathic International Alliance Annual Conference and General Meeting, Schlangenbad, Germany, 5-7 October

Vogel, S. (2006) Lumbosacral function and diagnosis: Can we palpate what we say we palpate? Health Education Seminars, 2<sup>nd</sup> International Evidence-Based Physical Therapy Conference, London, UK, 20<sup>th</sup> May

## **8. Student degree projects 2006-2007**

Name: Jenny Allan  
Supervisor: Steven Vogel  
Title: Identifying important information for routine collection in osteopathic practice – A survey of practising osteopath-educators

Name: Jeremy Allen  
Supervisor: Greg Barker  
Title: Do pre-professional BSO osteopathic students ask patients components of JBS 2 cardio vascular disease risk assessment (CVD), and are they aware of the component factors of CVD risk?

Name: Luke Askew  
Supervisor: Vanessa Finglas  
Title: A Dancer’s Perspective of Osteopathy

Name: Helen-Jean Ball  
Supervisor: Hilary Abbey

Title: Osteopaths' Attitudes to Depression and Screening for Depression in Clinical Setting

Name: Yousif Barr  
Supervisor: Charles Hunt DO, PG Cert  
Title: What impact have publicly funded tuition fees had on student diversity at The British School of Osteopathy?

Name: Sophie Bendall  
Supervisor: Will Podmore  
Title: Patient disclosure of alternative medications: Are there differences between disclosure to doctors and osteopaths?

Name: Claire-Laure Berthier  
Supervisor: Robert McCoy D.O.  
Title: An Investigation into the Effectiveness of Self-Massage with Tennis Balls in the Back, Shoulders and Forearm muscles in Manual Therapist Students

Name: Lucy Bracken  
Supervisor: Chris Thomas  
Title: An Investigation, Using the NEO Five Factor Model, Into The Personality Traits of Established Osteopaths and the Possible Value of This Model as a Tool in Selecting Future Osteopaths

Name: John Bray  
Supervisor: Barker  
Title: Supplementary Vitamins, Minerals and Omega-3 Essential Fatty Acids in the Treatment of Osteoarthritis

Name: Linda Canning  
Supervisor: Cindy McIntyre  
Title: A Correlation Study to Explore the Relationship between Duration of Low Back Pain and Mood

Name: Rebecca Cardew  
Supervisor: Mr Dennis Picknett  
Title: Inter examiner reliability of palpation and the extent of reliance on visual cues

Name: Chelena Chan  
Supervisor: Robert McCoy  
Title: An exploration between physiotherapists and osteopaths on their evaluation and treatment modalities for hip osteoarthritis

Name: Cédric Chapelin  
Supervisor: Emma Chippendale Bsc (Hons) Ost  
Title: Is there a relationship between hip range of motion and low back pain in trainee dancers?

Name: Edwina Clark  
Supervisor: Rebecca Mercer  
Title: To Assess Osteopaths' Perception and Treatment of Chronic Fatigue Syndrome/ Myalgic Encephalomyelitis (CFS/ ME) in UK Practice

Name: Amanda Cook  
Supervisor: Trevor Jefferies  
Title: Treatment of the Individual versus Guidelines aimed at GPs and Nurses in the Management of asthma in children

Name: Sarah Coutts  
Supervisor: Simon Browning DO Cert Ed  
Title: Osteopaths' attitudes towards the changing governance of osteopathy

Name: Megan Collins  
Supervisor: Frank Vincent  
Title: An Investigation into Students Understanding of the Principles of Osteopathy

Name: Claire Cullen  
Supervisor: Joanne Dear  
Title: To investigate the use of the Buteyko Breathing Technique in Osteopathy

Name: Tim Curtis  
Supervisor: Will Podmore  
Title: Should osteopaths be more aware of the physiological consequences of "binge drinking" and if so would a leaflet be of benefit to patient and osteopath

Name: Mrs Leza Dickson  
Supervisor: Trevor Jefferies  
Title: Conscious Breathing: Is Breathwork Being Utilised Within the Scope of Osteopathic Treatment Plans?

Name: Curleen Douglas  
Supervisor: M. Stewart (BSc Hons. Ost)  
Title: A Critical Literature Review of Case Studies on the effectiveness of Manual Therapy Treatment for Otitis Media in Children

Name: Andrew Duckmanton  
Supervisor: Charles Hunt  
Title: Handwashing behaviour of final year osteopathy students

Name: Fiona Margaret Dunmore  
Supervisor: Hilary Abbey  
Title: A survey of the treatment of children in general osteopathic practice

Name: Alison Emery  
Supervisor: Hilary Abbey  
Title: A Review of the Role of Manual Therapy in Treating Somatization

Name: Tom Fielding  
Supervisor: Jo Dear  
Title: Is there a correlation between the ranges of hip extension and talocrural dorsiflexion?

Name: Julia Finlay  
Supervisor: Nancy Nunn, Joanne Dear  
Title: An Exploration of the Role of Osteopathy in Treating Children with Developmental Coordination Difficulties

Name: Tina Fitz-Gerald  
Supervisor: Adrian Barnes  
Title: A qualitative study exploring historical concepts of rhythm in contemporary osteopathy

Name: Andrew Fung  
Supervisor: Steve Vogel  
Title: What do LBP sufferers say when given the chance? Emergent themes from the UK BEAM trial

Name: Andrew Graves  
Supervisor: Lindsey Howley  
Title: A Comparison of Cardio Pulmonary Resuscitation Training within the Manual Therapy Professions

Author: Jon Hawkins BA (Hons)  
Supervisor: Joanne Dear MSc, BSc (Hons), Pg Cert  
Title: An investigation into the use of exercise therapy for chronic low back pain by osteopaths in the UK

Name: Russell Hawer  
Supervisor: Paddy Searle-Barnes MA (Cantab) DO  
Title: To determine if exercise compliance is affected by the method of its instruction

Name: Beth Hazelwood  
Supervisor: Chris Thomas  
Title: A qualitative survey of osteopathic screening for type 2 diabetes mellitus

Name: David Hayward  
Supervisor: Hilary Abbey  
Title: Do Relationships Exist between the Expression of Stress and Anxiety during Pregnancy and the Incidence of Infantile Colic post-partum?  
A Critical Literature Review

Name: Julian Hearne  
Supervisor: Andrew Lay  
Title: A Review of the Efficacy of Capsular Stretching in the Management of Adhesive Capsulitis

Author: David Higenbottam  
Supervisor: Dennis Picknett  
Title: A pilot study of the efficacy of biofeedback in promoting breathing exercise-induced increase in heart rate variability.

Name: Christopher Hill  
Supervisor: Dr Steven Sandler  
Title: Can osteopathic treatment during pregnancy affect the reading on a Visual Analogue Scale (VAS) for those patients presenting with pelvic pain?

Name: Yuji Hosoda  
Supervisor: Joanne Dear  
Title: An osteopathic exploration of the aetiology of atopic eczema

Name: Stephen Hudson



Supervisor: Hilary Abbey  
Title: The relationship between practitioner ‘liking’ for a patient and therapeutic outcome – a pilot study

Name: Shane Huggins  
Supervisor: Simon Browning  
Title: The treatment and management approaches of osteopaths and chiropractors towards isthmic spondylolisthesis

Name: Keturah Hughes  
Supervisor: Joanne Dear  
Title: An investigation to quantitatively assess the effect of cooling on athletes’ submaximal cycle ergometry performance

Name: Danielle James  
Supervisor: Frank Vincent  
Title: Hyperventilation – An osteopathic investigation

Name: Jonathan lefèvre  
Supervisor: Will Podmore  
Title: Subtle energies and Osteopathy

Name: Claudia Ludbrook  
Supervisor: Mike Stewart  
Title: Do Dentists believe that Osteopathy is complementary to Dentistry and has their opinion changed since 1998?

Name: Patrick Luppi  
Supervisor: Helena Greenwood  
Title: A review of the neurological evidence that the gut affects emotions

Name: D.Joe Kaplan  
Supervisor: Joanne Dear  
Title: Wearing body armour and utility belts and its association with lower back pain in police officers.

Name: Debbi Parnell  
Supervisor: Hilary Abbey  
Title: A study to examine the concept of osteopathic care

Author: Kate Lichfield  
Supervisor: Joanne Dear  
Title: Why parents take their children to see an osteopath

Author: Tejen Majumdar.  
Supervisor: Hilary Abbey  
Title: Osteopathic Perspectives of Humour and Laughter in Clinical Situations

Name: Fionnuala Mc Carron  
Supervisor: Dennis Picknett  
Title: Investigating The Role Of Osteopathy In the Treatment of Patients with Parkinson’s Disease

Name: Sammy Macnamara

Supervisor: Will Podmore  
Title: The efficacy of bio natural supplements for the treatment of osteoarthritis

Name: Andrew McGowan  
Supervisor: Andrew Lay  
Title: Osteopaths in Scotland: A survey of factors affecting choice of practice location.

Name: Dawn McTeague  
Supervisor: Joanne Dear  
Title: Osteopathy and Chiropractic – Factors Influencing Career Choice

Name: Andrew Matthews  
Supervisor: Jo Dear  
Title: The effects of MET active assisted stretching on sportsmen

Name: Vikki Markham  
Supervisor: Steven Vogel  
Title: Patient paths to osteopathy and the influence they have on patient expectations of treatment.

Author: Thomas S Mars.  
Supervisor: Hilary Abbey.  
Title: Systematic Review: To assess the efficacy of mindfulness meditation practice as a healthcare intervention.

Name: Michelle Moynes  
Supervisor: P. Blanchard  
Title: The prevalence of diastasis recti abdominis in men aged between 40 and 65 in the British School of Osteopathy (BSO) clinic

Name: Stephanie O'Brien  
Supervisor: Jo Dear  
Title: Exploring Clinic Tutors understanding of Reflection and the Reflective Learning Process of Students

Name: Niamh O'Donoghue  
Supervisor: Cindy McIntyre  
Title: Psychosocial literature in osteopathy 1989-2006: a content analysis

Name: Andrew Oliver  
Supervisor: Frank Vincent  
Title: Osteopathic awareness of relationships involving music therapy and enhancing chronic pain relief.

Name: Edward Paget  
Supervisors: Vanessa Finglass  
Title: An Investigation into lumbar spine flexibility and hamstring injuries in elite field hockey players

Author: Natia Pantelidou  
Supervisor: Teri Turner BSc  
Title: Do osteopathic students have pain or difficulty practicing osteopathy and is their pain significant to hypermobility?

Name: Gillian Parr  
Supervisor: Chris Thomas  
Title: The Effect of a Short term Exercise Programme on Low Back Pain and Posture

Name: Anish Patel  
Supervisor: Will Podmore  
Title: The relationship between health locus of control and patients preference to Treatment

Name: Adam Peel  
Supervisor: Paddy Searle-Barnes  
Title: Corticosteroid-Induced Osteoporosis: The Beliefs and Practice Behaviours of Osteopaths

Name: Sarah Phillips  
Supervisor: David Propert  
Title: An investigation into the osteopathic treatment and management of Irritable Bowel Syndrome

Author: Delphine Pinaudeau  
Supervisor: Hilary Abbey  
Title: Is there a role for osteopathic health care in developing countries?

Name: Margaret Reay BA Hons  
Supervisor: Steve Vogel D.O.  
Title: Satisfaction with care, expectations of treatment and agreement with diagnosis; a cross sectional survey of patients attending the British School of Osteopathy clinic

Name: Cristobal Romero  
Supervisor: No supervisor  
Title: Treatment of Shoulder Impingement Syndrome

Name: Chris Ross  
Supervisor: Greg Barker  
Title: Electromyographic Responses to Spinal Manipulation: A Critical Review

Name: Diana Rowlands  
Supervisor: Simon Cooke DO  
Title: An Investigation into the Role of Fascia in Osteopathic Clinical Decision Making and Education

Name: Tanyel Salman  
Supervisor: Hilary Abbey  
Title: How much does positive outlook predict pain reduction over a three week period

Name: Caroline Sampson  
Supervisor: Chris Thomas  
Title: A study into the coping strategies of people with chronic pain.

Name: Jacquelyn Schirmer  
Supervisor: Dr. Stephen Sandler  
Title: The effect of pelvic floor muscles on reducing stress urinary incontinence:

A systematic Review

- Name: Holly Scotchburn-Snell  
Supervisor: Emma Chippendale  
Title: An Investigation into the affects of Osteopathic Treatment on Subjective Anxiety Levels as Measured by the Spielberger State and Trait Anxiety Inventory
- Name: Anne Simonsen  
Supervisor: Simon Browning  
Title: How do osteopaths treat and manage patients with general hypermobility?
- Name: Katherine Spencer  
Supervisor: Jo Dear  
Title: The relationship between pelvic torsion and foot dominance in female footballers
- Name: Michelle Spencer  
Supervisor: Hilary Abbey  
Title: Can verbal pain descriptors predict chronicity in acute low back pain patients?
- Name: Penelope Edmonds  
Supervisor: Trevor Jefferies BA Hons. BSc Hons. (Ost)  
Title: An investigation into the Relationship between Emotional Health and the Illness perceptions of Patients with Back Pain
- Name: Wesley Tan  
Supervisor: Emma Chippendale  
Title: The Effects of Breathing on Pain
- Name: Marie Tinniswood  
Supervisor: Clarissa Parry  
Title: Exploring the concept of the definition of chronicity in relation to low-back pain patients
- Name: Melissa Trim  
Supervisor: Dr. Stephen Sandler  
Title: An investigation to explore how acupuncturists and osteopaths treat vaso-motor symptoms in menopausal women.
- Author: Niall Wafer  
Supervisor: Alan Coles  
Title: The prevalence of myofascial trigger points in the quadratus lumborum muscle. A palpatory study
- Author: Michael Walker  
Supervisor: Penelope Conway  
Title: Is the GOsC's Code of Practise (2005) the end of cervical spine high velocity thrusts?
- Name: Matthew Webb  
Supervisor: Helen Robinson  
Title: The efficacy of Acupuncture/dry needling in the treatment of non specific

low back pain in osteopathic practice

Name: Tim Whelan  
Supervisor : Hilary Abbey  
Title : A Correlation Between Patient Satisfaction & Student's Emotional Intelligence In the BSO Clinic

Name: Stanley E. White  
Supervisor: Dr. Lorraine Nanke  
Title: Is changing behaviour part of osteopathic practice?

Name: Matt Wills  
Supervisor: Greg Barker  
Title: Opinions regarding the Basic Level of Nutritional Knowledge Required By Osteopaths and Guidelines for Referral.

Name: Charlotte Woolley  
Supervisor: Hilary Abbey  
Title An analysis into advice given during osteopathic, postnatal care

Name: Thomas Wynn-Jones  
Supervisor: Steven Vogel  
Title: The decision making process by which general practitioners refer low back pain patients to either an osteopath or physiotherapist

## College of Osteopaths



## Research at the College of Osteopaths

### Annual Research Report – 2006/07

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## **Introduction**

The College of Osteopaths provides a five-year, extended pathway course leading to a BSc (Hons) in osteopathy. The programme is designed for adult learners who are in full-time employment, who are looking for a career change. The course achieved degree status in 1997, when it was validated by Middlesex University and the programme was re-validated in 2005 for a further six years with Middlesex University. The programme has also achieved successful validation with Keele University, with the first intake in September 2005. Since the introduction of the degree programme, research has become introduced in to the undergraduate curriculum, with developments taking place annually with the view to embedding a culture of research within the school, as well as to ensure the College of Osteopaths is at the forefront of the development of research within the osteopathic profession.

Research in the undergraduate curriculum at the College of Osteopaths contributes to all three levels of study. The main focus is at level three, when the students attend the 'Research Skills' module followed by a dissertation in the 5<sup>th</sup> year. The list of student dissertations in the 2007 cohort are shown on page .

As detailed below, the Research Department of the College is taking steps to review the entire programme within the College curriculum to ensure that delivery continues to improve and that the overall research ethos of the College is promoted and established. Staff and student development has been the focus of new initiatives and success has been evidenced from analysis of student feedback, student results, plus in reports from external verifiers including external examiners appointed by the University and reviewers appointed by the Quality Assurance Agency. Steps have also been taken to expand the College's representation outwardly to the wider research community and the success of this is apparent by attendance of key staff at national and international conferences and links made with other institutions.



## Research Staff

The Research Modules are supported and developed by an in-house team of experienced staff and by the external examiner. The current research team in 2006/07 includes the following members:

Janine Leach DO, ND, PhD, Hon MFPH, Registered Osteopath

Helen Birch BSc, BSc (Hons), PhD, Registered Osteopath

Linda Goodman MA Bsc (Hons) , DO, ND, RGN, Registered Osteopath.

Rachel Ives MSc, BSc (Hons), DO, Registered Osteopath

Amanda Samson PhD, B.Ed

Stephen Castleton DO, PGCE, Registered Osteopath

Amanda Phillips DO, Registered Osteopath

Dr Julie Thompson DO, Registered Osteopath

Professor Cliff Beddows PhD FIBiol, FRSC C.Chem, FIFST (External Examiner)

## Esteem factors

Janine Leach represents Naturopathy on Prince of Wales Foundation for Integrated Health ACCORD group, President of British Naturopathic Association; represents the College of Osteopaths on National Council for Osteopathic Research (NCOR); Senior Research Fellow in Osteopathy at University of Brighton; Honorary member of Faculty of Public Health; member of judging panel of BSO Research Day, Editor, International Journal of Osteopathic Medicine.

Linda Goodman is President of the GCRN, Chair of the Registration Committee, Trustee & Director of British Acupuncture Accreditation Board (Complementary Therapy Representative) Trustee & Director – Nature Cure Clinic

Helen Birch is a lecturer in Musculo-skeletal patho-biology, Institute of Orthopaedics and Musculo-skeletal science & University College London & Royal Veterinary College. She is also a referee for Journal of Orthopaedic Research, Research in Veterinary Science, Equine Veterinary Journal and New Zealand Veterinary Journal.

Dr Julie Thompson has a PhD in botany and has published several botanical research papers, as well as examples of educational research. Dr Thompson joined the College of Osteopaths in 2006/07 and has brought to the team many years of experience in further and higher education.

Rachel Ives has successfully completed her MSc in Education Management. Her research dissertation is entitled ‘The Use of an “Integrated Professional Portfolio” as a tool for teaching reflective skills to Osteopathic students – a case study’. She works as Curriculum Manager and Senior Lecturer & Clinic Tutor at The College of Osteopaths.

## **The College of Osteopaths Research Conference – ‘Research Matters’**

The Research Department is pleased to announce the first research conference, ‘Research Matters’, which took place on September 16<sup>th</sup> 2006.

The purpose of the conference is to raise the profile of research within the College, expose students to a conference ambience, encourage students and staff to present papers, provide a forum for staff to present their own research and work in progress and to disseminate knowledge of College research projects. The conference was attended by final year students, as well as staff and alumni. The programme for the inaugural conference included three staff members, two students from the graduating year and two from the new 5<sup>th</sup> years.

### **Staff Presentations**

**‘MIGRAINE PATIENTS’ VIEWS OF OSTEOPATHIC TREATMENT: A PILOT STUDY’.** Presented by Dr Janine Leach, Senior Research Fellow in Osteopathy, Clinical Research Centre for Health Professions, University of Brighton

**‘DOES MANIPULATION OF THE CERVICAL SPINE HAVE A MEASURABLE EFFECT?’** Presented by Jeremy Longland DO

**‘TRADITIONAL MEDICINE IN THE CREOLE POPULATION OF BELIZE, CENTRAL AMERICA’** Presented by Rachel Ives MSc, DO

### **Graduate Presentations**

**‘Can Neck Proprioception Be Improved Through Directed Patient Exercise? A Pilot Study’.** Presented by Allison Drakes

**‘Understanding the Role of Suggestion in Osteopathic Treatment’.** Presented by Chris Drakes

### **Student Presentations**

**‘Post Traumatic Stress Disorder and osteopathic care’.** Presented by Anne-Tiphaine Braud

**‘An Investigation to discover whether the duration of an isometric contraction during a hamstring stretch using muscle energy technique affects the post stretch length of the hamstrings’.** Presented by Chris Dorgu

Feedback from presenters and attendees indicate that the conference was a great success and very useful for students and staff alike. The presentations were of a high quality and some lively discussion ensued after each presentation. The report from the Quality Assurance Agency visiting team as part of the College’s ‘Recognised Qualification’ renewal visit noted the success of the day, and suggested that in future years students in lower years should attend. This is planned for future years.

## Student Research Projects

|                                   |  |
|-----------------------------------|--|
| <b>Bolton, Paul</b>               | How does a GP in General Practice providing integrated care perceive the provision of osteopathic treatment?   |
| <b>Braud, Anne-Tiphaine</b>       | Do osteopaths consider post traumatic stress disorder in the assessment and treatment of patients?   |
| <b>Brodersen, Richard Henning</b> | A systematic review of the safety and side effects of glucosamine  |
| <b>Blair, Bradley</b>             | What remedial exercises do osteopathic students prescribe to patients with low back pain visiting an osteopathic teaching clinic?  |
| <b>Chick, Simon</b>               | Osteopathic Management of Irritable Bowel Syndrome; a Literature Review  |
| <b>Clarke, Dave</b>               | Are Osteopathic students being exposed to the populace? - A survey into the demographics of those being treated in an Osteopathic training clinic.                                       |
| <b>Dorgu, Chris</b>               | An investigation to discover whether the duration of an isometric contraction during a hamstring stretch using muscle energy technique affects the post stretch length of the hamstrings |
| <b>Ellicock, Hannah</b>           | A literature review to examine the ways in which osteopaths can best use muscle co-contraction exercises as a treatment for women with postnatal Stress Urinary Incontinence             |
| <b>Gogia, Sonia</b>               | The effect of self administered treatment on computer users who currently have a repetitive strain injury (RSI) specific to the upper limb   |
| <b>Goodwin, Moraig</b>            | Paediatric conditions from an osteopathic perspective: A clinical audit of the College of osteopaths' files  |
| <b>Gould, Sara</b>                | Reflex Sympathetic Dystrophy within Osteopathy   |
| <b>Hancocks, Julia</b>            | Is there a role for osteopathy following hip joint replacement surgery   |
| <b>Hartshorn, Stephen</b>         | A Comparison of Clinic Data from Two Osteopathic Practices Using the Welsh Index of Multiple Deprivation (WIMD) as a Marker  |
| <b>Houghton, Jason</b>            | Do Osteopaths and Osteopathic students feel confident prescribing a varied range of exercises to their patients during day-to-day practice?  |
| <b>Lutener, Tom</b>               | A Portrait of Osteopathy - An Investigation into the Marketing Material Produced by Osteopaths within the UK   |
| <b>Monson, R. Gavin</b>           | Inter-examiner reliability of Standing Anterior Superior Iliac Spine to Medial Malleolus and Greater Trochanter to Floor Clinical Tests for Measuring leg Length Inequality              |
| <b>Patton, Anthea</b>             | How satisfied are Osteopaths with their career?  |

|                            |  |
|----------------------------|--|
| <b>Agius, Anthony</b>      | Causes, Investigations and Management of TMJ dysfunction --<br>A Literature Review --  |
| <b>Bell, Steve</b>         | What are the patient's perceptions to computerised note taking?  |
| <b>Hewett, Zena</b>        | Is the 'one size fits all' approach to school furniture conducive to good-sitting posture? An exploratory study into the seated 'at task' position of junior high school children, and its correlation with ergonomic and anthropometric data. |
| <b>Howard, Andrew</b>      | Does isometric contraction, when combined with inhibition, result in greater muscle lengthening?   |
| <b>Law, Christopher J.</b> | An investigation into the reliability and validity of the Over Head Arm test as an indicator of Psoas Hypertonicity  |
| <b>Lester, Martin</b>      | Is there a difference in the outcome/response of patients with chronic lower back pain to osteopathy and osteopathy with dry-needling? A service evaluation in an Osteopathic Teaching   |
| <b>Levick, Daniel</b>      | Employment opportunities for graduating osteopaths compared to osteopathic graduates from 1994 to 1999   |
| <b>Phillips, Lola</b>      | Are acute cervical spine patients more likely to screen positive for risk of vertebral artery dissection than patients with other presentations?   |
| <b>Shahsavari, Saied</b>   | Can symptoms in patients with chronic shoulder girdle dysfunction be attributed to trigger points?   |
| <b>Thomas, Wini</b>        | Can Osteopathy Play a Role in the Management of Sickle Cell Anaemia?   |
| <b>Webb, Jeremy</b>        | Are medical students in the UK well informed about osteopathy, and what part do medical schools play in educating their students about osteopathy and/or other complementary therapies?  |
| <b>Webb, Jim</b>           | A retrospective case-control pilot study to investigate the association between lumbar spine degeneration and hamstring injuries in professional football players  |
| <b>Wither, Helen</b>       | A Study of the Aetiological Association between Intestinal Dysfunction and Chronic Inflammatory Joint Pain-A review of the literature  |

**European School of Osteopathy**



European School  
of Osteopathy

**Biennial  
Research Report  
2005–07**

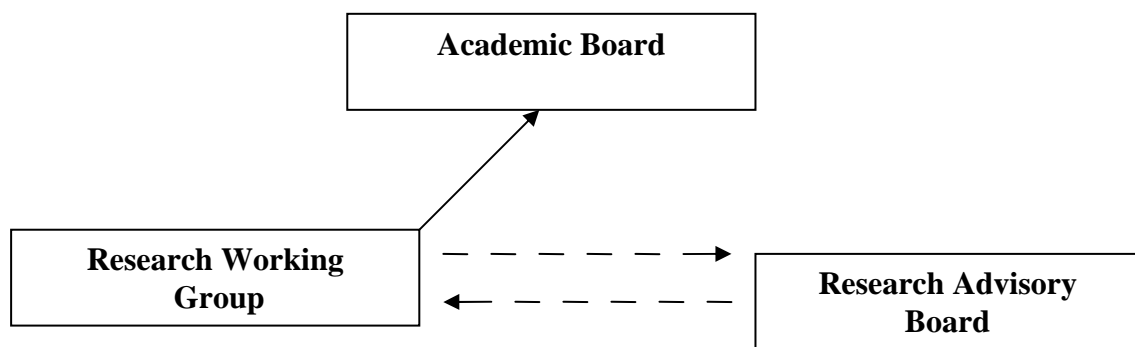
November 2007

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  2. Structure of the ESO and core staff
  3. Activities of the ESO Research Working Group
  4. Postgraduate Degree Completions 2006 and 2007
  5. Conference Presentations and Posters
  6. Publications
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  8. Evidence of Esteem
  9. Academic and Research Links with other Organisations and Institutions
- Appendix 1: 2006 COP conference abstracts  
2006 ICAOR posters

## 1. Introduction

This research report documents the ongoing and developing research activities within the European School of Osteopathy (ESO) for the past two academic years. In that time the necessary steps for establishing and nurturing a contemporary research ethos within the school have been taken. In particular, the Research Working Group, which was established in June 2005, has been highly effective in recognising and implementing research initiatives. It is guided by the newly formed Research Advisory Board and reports to the Academic Board three times a year.



These groups have worked together to produce a research strategy framework for the next 5 years, designed to help grow and develop research interests yet further.

The ESO is an active and committed stakeholder in The National Council for Osteopathic Research (NCOR) which was created in 2003 and is hosted by the Clinical Research Centre for Health Professions at the University of Brighton. In order to meet NCOR's request for an annual research report from all represented institutions, the ESO will hereafter move from biennial reporting to producing a research report annually.

## Message from the Principal

Welcome to this, the second research report from the ESO, and my first as its principal. In the months since my arrival I have increasingly been encouraged by the developing research activities within the School, as I am aware of the important role that

postgraduate research has to play in the evolution of the profession. I am therefore pleased to note that 11 osteopaths have gained their MSc degree over the past two years.

A significant accomplishment has been the conduct of a clinic-based project designed to inform faculty and students alike of commonly occurring 'adverse events' experienced by patients following treatment. As with any research, this work will not be complete until published in peer-reviewed journals. The importance of communicating and publishing research findings is becoming recognised within the School, and I am delighted with the contributions that the ESO has been able to make at recent research conferences.

Over the past two years the ESO has strengthened links and collaborations with other institutions and organizations. In particular, we were privileged to be able to work with other UK universities in preparing and submitting funding applications in response to the GOsC call for research proposals in the area of risk. We await the outcome as I write. We have also continued close involvement with NCOR, and taken the first steps towards collaborative research with the AT Still Research Institute in Kirksville, MO.

The ESO is now a partner college with the University of Greenwich and, with our growth in student numbers, there is much reason to believe that our commitment to osteopathic research will flourish.

**Adrian Barnes, *Principal***



## 2. Structure of the ESO and core staff

### **Principal of the European School of Osteopathy**

Mr Adrian Barnes MSc, DO  
Boxley House  
Boxley  
Maidstone  
Kent ME14 3DZ

Tel: 01622 671558  
Fax: 01622 662165  
Email: adrianbarnes@eso.ac.uk

### **Vice Principal (Academic)**

Also MSc Programme leader  
Dr Paula Fletcher PhD, BSc (Hons), Grad Cert Ed FE

### **Vice Principal (Osteopathic)**

Mr Steven Bettles BSc (Hons) Ost, BA

### **Associate Vice-Principal (Research): Honorary Contract**

Mr Christian Fossum DO

### **BSc Research Projects Co-ordinator**

Dr Peter Collins PhD, MBA, BSc (Hons), C Biol

### **Postgraduate Research Development Officer**

Mrs Brenda Mullinger BSc (Hons), FRSM, HonFICR

### **Clinic Head**

Mr Robert Thomas BSc (Hons) Ost, BA

### **MSc Project Supervisors**

Mr Clive Hayden MSc, DO  
Ms Diana Pitt MSc, DO  
Mr Andrew Golding MSc (Sports Science), BA  
Mr Lance Bird MPhil  
Mr Dévan Rajendran MSc, BSc (Hons), DO, ND  
Dr Paula Fletcher PhD, BSc (Hons), Grad Cert Ed FE  
Dr Peter Collins PhD, MBA, BSc (Hons), C Biol  
Mr Adrian Barnes MSc, DO

### **Research Working Group Members**

Dr Peter Collins BSc (Hons), PhD, MBA, C Biol  
Mr Robert Froud BSc (Hons) Ost  
Mrs Brenda Mullinger BSc (Hons), FRSM, HonFICR  
Mr Dévan Rajendran MSc, BSc (Hons), DO, ND  
Mr Christian Fossum DO (external adviser)

### **Research Advisory Board Members**

*Staff and faculty:* Mrs Brenda Mullinger (chair)

Mr Dévan Rajendran MSc, BSc (Hons), DO, ND

Dr Paula Fletcher PhD, BSc (Hons), Grad Cert Ed FE

Mr Steven Bettles BSc (Hons) Ost, BA

*External advisors:*

Dr Dawn Carnes PhD, BSc (Hons) Ost, BSc (Hons) Hum Psych., DO

Dr Janine Leach PhD, QTS, BSc (Hons), DO, ND

Dr Iris Musa PhD, MPhil, FCSP, DipTP, CE

Prof Robert Douglas

## **3. Activities of the ESO Research Working Group**

### **Research Working Group Members**

Peter Collins, Robert Froud, Christian Fossum (external adviser)

Brenda Mullinger (secretary), Dévan Rajendran

This working group has been very active over the past two years and achieved much in that time.

### **Specific Research Projects**

*Collaborative project on inter- and intra-observer reliability*

Principal investigators: AT Still Research Institute, Kirksville, Missouri, USA.

An initial feasibility study was successfully completed at the ESO's teaching clinic. A revised protocol is awaited.

*Survey into the frequency of commonly occurring adverse events*

Recruitment into this pilot study, which was conducted at the ESO's teaching clinic, was completed on time and the results are now being analysed.

A grant application has been made by C Fossum to the AT Still Research Institute to help fund developments in this project.

### **Visiting lecturers**

The RWG hosted two lectures for faculty and students:

- April 2006: Gary Fryer, *Senior Lecturer in Osteopathic Medicine, Victoria University* spoke on "Evidence of paraspinal tissue changes associated with somatic dysfunction".
- February 2007: Dr Dawn Carnes, *Osteopath and post-doctoral research fellow, Queen Mary School of Medicine and Dentistry, London* gave a presentation based on her PhD thesis 'Understanding and measuring chronic pain in the community using self-completed pain drawings'.

### **Visit to the University of Brighton**

Members of the RWG visited the Clinical Research Centre at the University of Brighton in September 2006 to see the clinical biomechanics facilities and to discuss their use with Prof Lee.

### **Conference participation**

Support from the ESO for the Chiropractic Osteopathy and Physiotherapy annual conferences '*Moving forward through research and practice*' in 2006 and 2007 was

strong. Several RWG members attended, and there were 2 presentations from recent graduates on each occasion (developed with the help of the RWG). A repeat of these presentations for the benefit of undergraduates is being considered.

The display of research posters mounted by the RWG at the ESO's International Conference held at Boxley, Maidstone on 22-25 June 2006, was a success and will be repeated at future events.

#### 4. Postgraduate Degree Completions 2006 and 2007

##### MSc – University of Wales

###### Graduating 2006

| <b>Student</b>  | <b>Project Title</b>   |
|-----------------|--|
| Bruce Carnegie  | Comparison of shoulder range of movement in patients following breast cancer and patients with normal range of motion.   |
| Céline Mènetau  | Do visceral techniques have a beneficial effect on the outcome of osteopathic treatment for low back pain in female patients of child-bearing age?                         |
| Devan Rajendran | An electronic myotonometric comparison of lumbar paraspinal muscle compliance in symptomatic and asymptomatic patients.  |
| Jeff Richards   | An investigation of the Eaman technique in symptomatic hypertension patients. A prospective clinical trial to measure the effects of deep relaxation on the mind and body. |
| Loïc Tremel     | Clinical based trial on the effect of osteopathic treatment on gastro-oesophageal reflux disease compared to orthodox treatment.   |
| Matthieu Vetele | Effects of specific D/L osteopathic vertebral manipulation on lumbar proprioception in both low back pain and pain free patients.  |
| Yves Waldburger | The facilitation phenomenon, osteopathic reflexes and their association with the referred pain concept – a literature review.  |
| Jamie Taylor    | Does osteopathic treatment of spinal lesions alter the height/weight ratio?  |

###### Graduating 2007

| <b>Student</b>    | <b>Project Title</b>   |
|-------------------|--|
| Laurène Gonindard | Association between gastroesophageal reflux and otitis media in children: osteopathic relevance. A critical literature review. |
| Giovanni Ruocco   | Effectiveness of osteopathic treatment in management of gastritis in female patients aged 30 to 50y.                           |

Valeria Alves Ferreira            The effectiveness of osteopathic treatment in patients diagnosed with endometriosis and complaining of lumbar-pelvic pain and discomfort.

## Registered postgraduate students

### **MSc Osteopathy – University of Greenwich**

There are 12 students currently registered on this course, completion expected early 2009.

### **MSc Osteopathy – University of Wales**

There are 2 students currently registered on this course.

## 5. Conference Presentations and Posters

- *4<sup>th</sup> Chiropractic, Osteopathy and Physiotherapy Annual Conference, Brighton, September 2006*

*Platform presentations* made by two ESO graduates:

**Andrew Love:** The windlass mechanism related to foot rigidity – a clinical investigation.

**Maria Sonberg:** Can osteopathy help hypothyroid women with musculoskeletal complaints?

The abstracts of these presentations appear in Appendix 1.

A further two presentations will be made by recent graduates at the 5th COP Annual Conference, being held in London, September 2007.

- *Third International Symposium on Advances in Osteopathic Research, Wiesbaden, Germany October 2006*

**Hayden C\*.** A preliminary assessment of the impact of cranial osteopathy for the relief of infantile colic. A randomized controlled trial.

### *Poster Presentations*

- *1<sup>st</sup> joint ESMAC-GCMAS Meeting, Amsterdam, Holland September 2006.*

**Pantall A.** Variability of SEMG of five stump muscles during stance phase of gait in TF amputees with osseointegrated prostheses. (*ESMAC - European Society for Movement Analysis in Children; GCMAS - Gait & Clinical Movement Analytic Society*).

- *International Conference on Advances in Osteopathic Research (ICAOR6), BCOM, London, March 2006*

**D Jackson, B Mullinger:** Cortisol production in infants with colic as an outcome measure.

**K Bourne, C Fossum, P Collins:** Short term effect on blood pressure in hypertensive subjects: comparison of Chapman's reflex technique of the adrenal glands vs. balanced ligamentous tension technique on the 12<sup>th</sup> rib.

*Copies of these posters appear in Appendix 1.*

## 6. Publications

### Papers

**Guillaume Climent, Mark Goss-Sampson.** A preliminary study into the contribution of hip proprioceptors in the postural control of upright stance: Implications for an osteopathic contribution to the field of postural rehabilitation. *British Osteopathic Journal* 2006;XXVIII:17-22

**Lim KW.** Infantile colic: a critical appraisal of the literature from an osteopathic perspective. *International Journal of Osteopathic Medicine* 2006; 9:94–102

**Brenda Mullinger.** Manuscript preparation and publication for would-be writers: an aid to disseminating osteopathic research. *International Journal of Osteopathic Medicine* 2007 [doi:10.1016/j.ijosm.2007.06.001](https://doi.org/10.1016/j.ijosm.2007.06.001).

### Abstracts

**Clive Hayden, Brenda Mullinger.** A preliminary assessment of the impact of cranial osteopathy for the relief of infantile colic. *Deutsche Zeitschrift für Osteopathie*. 2007;1:8.

**A. Pantall, S. Durham, D. Ewins.** Variability of SEMG of five stump muscles during stance phase of gait in TF amputees with osseointegrated prostheses. *Gait & Posture*, 2006; 24: S153-S154. The article can be accessed on: <http://jegm06.org/docs/abstracts%20published%20posters.pdf>

## 7. BSc student research theses 2007 – dissertation titles

- Does balanced ligamentous tension technique to the fibular head increase the range of motion in knee flexion?
- Temporomandibular dysfunction, its relation to headaches and facial pain, and

osteopathic treatment.

- A questionnaire investigation to determine final year ESO students' experience and ability to prescribe exercises as part of their osteopathic skills
- How sub-occipital inhibition affects blood pressure in pregnancy
- An osteopathic analysis to illustrate the role of heart disease in the development of frozen shoulder.
- Can we increase the lumbar spine flexion by using a BLT technique on the Coccyx?
- Short term effect on FEV1/FVC in healthy male subjects: Comparison of costo-vertebral joint articulation versus sham treatment,
- GOsC Clause 20, the osteopath's viewpoint – A survey by questionnaire.
- Does a sacral toggle increase the vital capacity of the lungs?
- An investigation into whether there is a difference in lumbar spine extension between female ballet dancers and female contemporary dancers and the possible association with the incidence of low back pain.
- Does an MET applied on the Trapezius Muscle increase the flexion range of movement of the cervical spine?
- Functional osteopathic inhibition of the diaphragm's crura and the effect on lumbar spine mobility.
- A retrospective investigation into the presenting symptoms and diagnostic findings of babies seen in the ESO Children's clinic with referral to the nature of the birth process.
- A comparative study of the effect on cervical spine mobility of two manipulative techniques applied on the cervico-thoracic joint.
- A review of the rationale for common diagnoses of low back pain at the European School of Osteopathy teaching clinic, with a retrospective analysis of patients' presenting complaints from 2005-2006.
- Techniques and modalities used in contemporary osteopathy.
- "Rehydration of the longitudinal ligaments of the spine technique" applied from the thorax (ROTTL) and its effects on spinal flexion.
- The activity of the lumbar erector spinae muscle group during the forward flexion and the return back to the erect posture in barefoot, low and high heeled shoes recorded by electromyography.
- How cervical spine dysfunction can lead to TMJ dysfunction.
- An investigation into the possible effects of muscle energy technique (MET) on the ankle joint.
- Quantum physics and osteopathy.
- An evaluation of whether fascial unwinding of the neck increases the cervical range of rotation.
- Fibromyalgia and the available treatments for sufferers: a literature review

- An investigation into the use of a high velocity thrust at the occipito-atlantal Joint and its effect on blood pressure.
- A questionnaire study comparing chiropractors, orthopaedic surgeons, osteopaths and physiotherapists in the United Kingdom and their practise with regards to diagnosis and treatment of Anterior Cruciate Ligament injuries.
- Measuring the ability of osteopathic students to distinguish wires of different thickness, using palpation skills, as they progress through the course.
- How does the treatment of the upper triangle affect the range of motion in the cervical spine?
- The diaphragms, involvement in the respiratory mechanisms.
- A comparative study between the physiotherapy and the osteopathic management of acute ankle sprain grade 1 and grade 2.
- “Surfing” Decreased flexibility and pain related to spiritual sport.
- A survey of rugby injuries and osteopathic aspects.
- An osteopathic approach to rheumatoid arthritis auto-immunity and homeostatic mechanisms. A literature review.
- Comparison of Muscle Energy Technique applied in two different positions (sidelying and supine) to the Psoas muscle and the effect on general active forward bending.
- An investigation into treatment of Chapman’s reflex points for the kidney, and the effect on hip flexion via psoas.
- Aquatic Osteopathy: A literature review
- Analysis of the possible short term effects of manipulative techniques of ribs on the laterovertebral ganglia and the sympathetic nervous system.
- An investigation into cervical rotation in tractor drivers and relationship to neck pain and headaches.
- “Muscle Energy Technique” to lengthen or strengthen? A research project designed to show and compare effectiveness of two methods of MET.
- An investigation into the reasons for choosing osteopathy as a career.
- Ergonomic and osteopathic considerations of office furniture design.
- Ankylosing spondylitis: a literary review of an orthodox medical approaches and a manual therapy manipulatory approach.
- An investigation into the effects of MET applied to the TMJ on cervical spine range of rotation.
- Specific thoracic adjustment and effects on salivary cortisol production.
- The effect of touch on pain: experiment
- Can temporomandibular dysfunction have an effect on posture? A literature review.
- An investigation into the osteopathic treatment of childhood asthma.
- An investigation to see whether an isometric muscle energy technique to the

quadriceps muscle will improve the range of motion of active flexion at the knee joint.

## 8. Evidence of Staff Esteem

### *Mr Steven Bettles*

#### **Registration for higher degree programme**

Open University – MEd

### *Dr Peter Collins*

#### **Professional associations**

Member, Institute of Biology, London

Consultant Biologist, register of the Institute of Biology

Fellow, Zoological Society of London

#### **Other: External examiner**

Assessor: British School of Osteopathy BSc Undergraduate Research Projects  
2001–present

### *Dr Paula Fletcher*

#### **Awards (honorary positions/contracts and educational awards)**

Postgraduate certificate in leadership and management (Open University)

#### **Journal reviewing/refereeing**

Member of the Advisory Board: British Journal of Osteopathy

Member of the Advisory Board: International Journal of Osteopathic Medicine

#### **Other: External Examiner and Adviser**

Examiner - University of Bedford: Postgraduate Diploma in Clinical Practice of  
Osteopathy in the Cranial Field (at British School of Osteopathy) 2004-2008

Examiner - University of Bedford: MSc in Paediatrics 2005–09

Examiner – University of Brighton: BSc (Hons) Oriental Medicine – acupuncture  
2006–10

External adviser: University of Keele for new (part-time) BSc Hons Osteopathy

### *Mr Christian Fossum (honorary contract)*

#### **Journal reviewing/refereeing**

Member of the International Advisory Board: International Journal of Osteopathic  
Medicine

Member of Scientific Advisory Board: D.O. Deutsche Zeitschrift für Osteopathie  
(Hippokrates Verlag)

#### **Other: Book Proposal Reviewer**

Elsevier Science, United Kingdom

### *Mrs Brenda Mullinger*

#### **Professional Associations**



Fellow, Royal Society of Medicine (RSM)  
Honorary (Life) Fellow of the Institute for Clinical Research (ICR)

**Research-related external committee membership**

Member, National Council for Osteopathic Research (NCOR)  
Council Member and Editorial Representative: Section of Pharmaceutical  
Medicine & Research, Royal Society of Medicine

*Mr Dévan Rajendran*

**Other: Book Proposal Reviewer**

Elsevier Science, United Kingdom

## 9. Academic and Research Links with other Organisations and Institutions

*University of Greenwich:* validates BSc degree for undergraduate entry 2006 and 2007

*University of Wales:* validates BSc degree for undergraduate entry 2004 and 2005.

*AT Still University of Health Sciences, Kirksville, MO, USA*

The position of Associate Vice-Principal (Research) at the ESO is held by Mr Christian Fossum who is Associate Director of the AT Still Research Institute.

*Academy of Science, St Petersburg, Russia:* The ESO supports a research co-ordinator at the Academy.

## 2006 COP conference abstracts

### **Title: The windlass mechanism related to foot rigidity – a clinical investigation.**

Author: A. D. Love BSc (Hons) European School of Osteopathy, Boxley, Maidstone.

#### **Rationale**

The windlass mechanism is an important component of gait – it assists in raising the medial longitudinal arch (MLA) and is dependant on the amount of extension of the 1<sup>st</sup> metatarsopharangeal (MTP) joint.

#### **Objective**

**To determine whether there is a positive correlation between the flexibility of the MLA and the passive range of extension at the 1st MTP joint.**

#### **Design**

Open observational study.

#### **Subjects**

**20 healthy, active, male students with varying arch heights: subjects with any history of pathology or surgery to their lower limbs were excluded.**

#### **Methods**

Foot dorsum height was measured at 90% and 10% of body weight and relative arch deformity (RAD) calculated<sup>1</sup>. Measurements were taken of the truncated, half-foot, and total foot lengths; body weight, height, body fat, footedness, and passive extension of 1<sup>st</sup> MTP joint.

#### **Results**

All subjects were right footed with a BMI of 18.5–29.9kg/m<sup>2</sup>. Data analysed using Pearson's *r* revealed a significant positive correlation between the passive extension at the 1<sup>st</sup> MTP joint and the MLA height of the subjects' left feet ( $n = 20$ ,  $r = 0.437$ ,  $p < 0.05$ ) and both feet ( $n = 40$ ,  $r = 0.357$ ,  $p < 0.05$ ). However, no significant correlation ( $r = 0.337$ ,  $p > 0.05$ ) was detected for the subjects' right feet. This suggests that the windlass mechanism may not be the sole factor in determining RAD.

#### **Conclusion**

Left–right discrepancy as detected here is consistent with the suggestion that lower limb asymmetry is normal and reflects an ipsilateralisation of the non-dominant leg's rôle in supporting the dominant leg during activities that require fine motor control<sup>2</sup>. These results challenge the traditional osteopathic concepts of diagnosing pelvic “lesions” based on an assumed symmetry of lower limbs, pelvic landmarks and joint ranges of motion<sup>3</sup>.

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<sup>1</sup> Williams & McClay, Phys. Ther. 2000; 80(9):864

<sup>2</sup> Peters, Psychol. Bull., 1998; 103:179

<sup>3</sup> Kuchera & Kuchera, 1993, Ch. 6: Greydon Press

## **Title: Can osteopathy help hypothyroid women with musculoskeletal complaints?**

Name: Maria Sonberg, European School of Osteopathy, Maidstone, Kent.

### **Rationale**

Musculoskeletal symptoms often accompany thyroid dysfunction. The study assessed whether an osteopathic treatment approach could benefit post menopausal women with hypothyroid myalgia and arthralgia.

### **Objective**

H<sub>0</sub>: Osteopathic treatment of the thyroid gland will not alleviate musculoskeletal pain in post-menopausal women suffering from hypothyroidism.

### **Design**

A within-subject experimental design; preliminary study.

### **Subjects**

#### *Inclusion Criteria:*

Post-menopausal women with a 5 year history of diagnosed hypothyroidism (on prescribed medication); onset of musculoskeletal symptomatology post diagnosis.

Body weight within a range of 20–35 kg/m<sup>2</sup> BMI.

#### *Exclusion Criteria:*

Any form of thyroidectomy.

Subjects that met the inclusion criteria were recruited from Norway (n=18) and gave informed consent.

### **Methods**

Subjects received 3 set osteopathic treatments over a period of 4 weeks. Before each treatment and within 4–6 weeks of the final treatment, all subjects completed a modified version of the Wisconsin Brief Pain Questionnaire (McDowell 1996).

Each treatment session was identical for all subjects throughout this study. Techniques included: soft tissue work to the muscles of the neck and upper thoracic spine; articulations of the cervical spine, ribs and clavicles; functional release of the diaphragm; passive stretching of anterior throat fascia; Chapman's Reflexes (for the thyroid gland); and a CV4. Techniques were applied in supine, prone and sidelying positions.

### **Results**

A Wilcoxon's signed rank test, with a one-tailed hypothesis at the  $\alpha$  level of 0.05, was used to assess pain data. Overall, patients reported a significant reduction in symptoms; 83% of patients reported a significant treatment effect 4-6 weeks following the final treatment.

### **Conclusion**

Osteopathic treatment of the thyroid gland alleviated musculoskeletal pain in these women. Further investigation with a controlled, blinded design and a larger cohort of patients is warranted.

## 2006 ICAOR posters

### Cortisol production in infants with colic as an outcome measure

Daphne Jackson DO, MSc

Highfield Osteopathic Practice, Kendal, Cumbria

Brenda Mullinger BSc

European School of Osteopathy, Maidstone, Kent

**Introduction:** The aetiology of colic is the subject of much debate; the general lack of consensus on its development has led to many treatment strategies. Despite sparse research evidence, cranial osteopathy has gained a particular reputation<sup>1</sup> and parents bringing colicky babies to osteopaths regularly report improvement or cure of symptoms. Two recent reports<sup>2,3</sup> suggest that colicky babies suffer fewer hours of discomfort each day and sleep better after osteopathic treatment.

Finding a physiological marker (eg change in stress hormone levels) for colic would allow clinical trials to test the belief that osteopathic treatment relieves colic.

**Design:** Prospective, open comparison of cortisol levels in infants with or without colic. Ethics approval was sought from the LREC and two PCTs.

**Methods:**

**Participants:** Healthy full term infants aged 2–4 months, with or without defined colic symptoms. Colic was defined as 'crying restlessly for at least 3hours/day on 3 days/week for 3 weeks'<sup>4</sup>.

**Intervention:** Parents collected saliva samples on two days from their calm infant (by rolling a cotton bud over gums and tongue) and provided details of the pregnancy, birth and infant (including physical or emotional trauma to mother or baby during or after gestation).

**Sample analysis:** Prof Hucklebridge, University of Westminster  
**Outcome Measures:** Mean morning (AM) and evening (PM) cortisol levels in saliva; 4-way analysis of variance.

| Demographics          | Colic<br>(n=7) | No Colic<br>(n=9) |
|-----------------------|----------------|-------------------|
| Males/Females         | 2/5            | 5/4               |
| Age: Mean (SD) (days) | 75.7 (19.2)    | 74.0 (17.4)       |
| Trauma (yes/no)       | 4/3            | 2/7               |

**Results:** Preliminary analysis revealed no relationship between age and cortisol level. For all infants (n=16) a significant interaction between cortisol level and time was detected ( $p<0.01$ ; analysis of variance); mean AM levels were 8.93 versus 3.45  $\mu\text{g/dL}$  (PM). There were no other within-subject effects, including gender and age. Between group comparison showed no significant difference in patterns of cortisol production in infants with colic or without colic (Table).

|          |           | Cortisol AM ( $\mu\text{g/dL}$ ) | Cortisol PM ( $\mu\text{g/dL}$ ) |
|----------|-----------|----------------------------------|----------------------------------|
| Colic    | Trauma    | 8.5 ( $\pm$ 2.3)                 | 3.2 ( $\pm$ 1.3)                 |
|          | No Trauma | 5.9 ( $\pm$ 2.6)                 | 5.0 ( $\pm$ 1.5)                 |
| No Colic | Trauma    | 11.1 ( $\pm$ 3.2)                | 1.7 ( $\pm$ 1.9)                 |
|          | No Trauma | 8.6 ( $\pm$ 1.7)                 | 4.6 ( $\pm$ 1.0)                 |

**Conclusions:**

- Measuring cortisol levels in young infants is feasible
- Detection of the known effect of time provides confidence in the sampling and analyses.
- Colic appeared to have no effect on either overall levels or the diurnal variation of cortisol production,
- Findings in contrast to previous research<sup>5</sup> which showed a flattened diurnal pattern in colicky infants. Possible reasons include:
  - Small sample size
  - Considerable within-subject variability
  - Circadian pattern possibly not fully established in this cohort.
- Further research to find a physiological marker is needed.

1. Vickers A et al. BMJ 1999;319:1176-2. Hayden CJ, Mullinger BM Complement Ther Clin Pract 2006. 3. Lim KW. MSc thesis 2004: ESO library. 4. Helseth S, Begnum S. J Clin Nurs 2002;11(5):672. 5. White BP et al. Child Dev 2000;71(4):862



**London School of Osteopathy**

# Annual Report on Research

***December 2007***

## ***Review of Research Activity at the LSO***

### **Historical context**

The dissertation program was introduced to the LSO in 1993 as an essential feature of the integral assessment programme at a standard consistent with an honours level award. The first dissertations were completed and submitted in 1998.

The LSO retains Norman Hester and Steven Reed of Westminster University to support the students with the generation of their dissertations. As mentioned in the last Report they are continuing to provide expertise, encouragement and patience in helping students to clarify, develop and refine initial ideas into more realistic proposals. This help is complemented by guidance concerning the choice and application of statistical support and analysis where necessary in locating and examining emergent findings and general writing up the dissertations. The Principal continues to provide workshops and lectures in the operational aspects of putting a dissertation together.

### **Standards and supervisory staff**

The academic year of 2006-7 is the 10<sup>th</sup> cohort. This cohort were an outstanding year. They included the first cohort of our Accelerated Learning Program (ALP) of physiotherapists and a group of students APLeD from a chiropractic school. We have included the final grades of this cohort as we consider they reflect the quality of the LSO's graduates. They again demonstrate the range and diversity of what the students are capable of. Students are exploring both qualitative and quantitative aspects of issues surrounding the clinical arena. The ALP students undertook Comparative Critiques rather than dissertations. The awards were as follows:

|                  |    |
|------------------|----|
| First Class Hons | 4  |
| Upper Seconds    | 12 |
| Lower Seconds    | 2  |
| Thirds           | 2  |

One of our graduates, Jamie Dearing, won 1<sup>st</sup> prize with his presentation: '**An examination of pressure-pain thresholds at myofascial trigger points, following muscle energy technique or ischaemic compression treatment**' at the 4<sup>th</sup> Chiropractic Osteopathy and Physiotherapy Annual Conference: "**Moving forward through research and practice**" held at the British School of Osteopathy. (This was an Undergraduate Research Conference across three professions: osteopathy, chiropractic & physiotherapy).

We are pleased that we have retained the same team of supervisors for the 2005-7 students. The dissertation program demonstrates the continuing maturity of this team.

One of our present 5<sup>th</sup> Year students obtained funding and underwent a rigorous ethical protocol in having his research dissertation passed by a Primary Care Trust. His study is investigating the efficacy of osteopathy in the treatment of HIV.

Dawn Limbert has continued to be the LSO's representative on NCOR. Dawn has commenced a Masters program at Leeds Metropolitan University. Other LSO graduates are enrolling onto Masters programs providing evidence of a research based ethos at the school.

### **Publications and presentations**

The next issue of the *British Osteopathic Journal* (Vol XXIX 2008), is currently preparing to go to press. This will be the first issue under Derrick Edwards' editorship. Its theme will focus on education and research.

### **LSO MSc course**

Again, it is rather disappointing to report that the LSO has not been able to commence its Masters program. Once the issues and doubts surrounding HEFCE that have dominated the LSO's recent strategic planning have been resolved the LSO will look forward to delivering a MSc Program.

## **Ethical considerations**

By and large, again, it is only ethical issues in relation to research dissertations that have concerned the LSO. Similarly as before, in the majority of cases, the issues were and are minor. There has been little to concern the ethics committee.

## **Staff of the LSO registered as dissertation supervisors and areas of interest 2007**

### **Mark Bujakowski**

- Biomechanics
- Patients' perceptions
- Motion/palpation reliability

### **Tony Carew:**

- Sports
- Ergonomics of the foot
- Upper limb dysfunction

### **Emma Chippendale**

- Psycho-social issues
- Sociology
- Patients' perspectives/management
- The knee
- Practice issues/management

### **Jo Cole**

- Acute patients
- Neurological disorders

### **Dr Martin Collins**

- What makes patients better
- Why does 'practise' work
- And other topics that may interest him

### **Derrick Edwards:**

- Learning
- Sociology of health
- Health psychology
- Roles of regulatory and professional bodies,

### **Fiona Hamilton:**

- Education
- Attitudinal/emotional perspectives
- Sport.

### **Robin Kirk:**

- Patients' perceptions
- Health belief models
- Psycho-social influences
- Health issues influenced by culture, gender, ethnicity etc;
- Historical perspectives
- SAT; TBA.
- Use of language, terminology in healthcare

### **Dawn Limbert**

- Sports care
- Psycho-social issues
- Postural issues
- Osteopathic principles

**Mick Snee**

Neurological & neuro-psycho concepts

**Nico Tanguay**

Osteopathic principles and concepts  
Biomechanics

**Ed Wilmott:**

Apparatus based studies involving biomechanics  
Motion/palpation  
Ergonomics and ergometrics

**Heath Williams**

Sports injuries  
Rehabilitation  
Techniques appertaining to the above

**Phyllis Woodfine**

Repetitive strain injury  
Women's issues in health and illness

**Other Academic and Research Links**

Robin Kirk

Ex-Editor: *British Osteopathic Journal*  
External Examiner: Oxford Brookes University  
External Examiner: Pg Dip osteopathy in the cranial field BSO  
Involvement in CAM Module Delivery at BSMS  
Ex-Council Member: British Osteopathic Association  
SIOM Lecturer: Psychosocial Concepts Module  
Expert Witness in Medico-legal Cases  
Final Clinical Competences Assessor for GOsC

Fiona Hamilton

Course Leader LSO  
Involvement in CAM Module Delivery at BSMS  
Involvement Module Delivery MSc Physiotherapy, UoB  
Final Clinical Competences Assessor for GOsC

Derrick Edwards

Director of Quality Enhancement LSO  
Quality assurance adviser ESO  
Unit Leader MSc/PgDip osteopathy in the cranial field BSO

Martin Collins

External Examiner: SIOM, ESO,  
Lecturer: ICOM, BSO, OBU

Maria Counce

External Examiner: Cardiff University, Bangor University  
Course Director: Post-grad Diploma Occupational Therapy, London South Bank University  
Senior Lecturer In Biomedical Sciences

Robert Elliott

Programme Leader: Biomedical Sciences University of Westminster  
Theme Leader: Health Sciences School of Integrated Health  
External Examiner: University of East London  
Member: Higher Education Academy



*Titles of Dissertations, authors and supervisors*

**Self-report of neck and shoulder pain by staff of The Open University: a survey**  
Mandy Banton Supervisor Maria Caunce

**A Study Looking at the Effects Hamstring Stretches, within an Osteopathic Treatment, have upon Perceived Change to Lower Back Pain, Using an adaptation of the Western Ontario and McMaster Universities (WOMAC) Index Questionnaire**  
Author: Marcus Bernini Supervisor: Heath Williams

**Attitudes of occupational health practitioners regarding communication with manual therapists**  
David Black Supervisor: Heath Williams

**A comparison of contemporary osteopathic practice in Germany and in the United Kingdom**  
Jenny Borst Supervisor: Martin Collins

**An investigation of intraexaminer and interexaminer reliability in the measurement of cervical active range of motion using the cervical measurement system (CMS)**  
Nicholas P. Burns Supervisor: Mary Penn

**Title: A study into health, lifestyle and the perception of Osteopathy within the community of the City and district of St Albans, Hertfordshire**  
Andy Clayson Supervisor: Robin Kirk

**Posture at the computer workstation and its effect on musculoskeletal health**  
Paula Collier-Wood Supervisor: Dawn Limbert

**An examination of pressure-pain thresholds at myofascial trigger points, following muscle energy technique or ischaemic compression treatment**  
Author: Jamie Dearing Supervisor Fiona Hamilton

**A study looking at the role of nutrition within the osteopathic profession**  
Tracy Elroy Supervisor: Derrick Edwards

**Title: A study to evaluate knowledge of what osteopathy is, the scope of what it can treat and the effect this has on referral rates amongst NHS consultants in rheumatology, neurology, orthopaedics, palliative care and general practitioners in England.**

Louise Goodey Supervisor: Phyllis Woodfine

**An investigation into the palpatory threshold of fifth year students at the London School of Osteopathy**  
Paul Henighan Supervisor: Heath Williams

**Osteoporosis in adult males: a survey of the awareness of the predisposing factors and preventative management**  
Author: Hugo Isaac Supervisor: Robin Kirk

**Osteopathic manipulation and exercise in the treatment of chronic neck pain: a prospective study**  
Idris Moudi Supervisor: Dawn Limbert

**A study to investigate the perceptions of osteopathy within the Metropolitan Police Service (MPS)**  
Philip Paton Supervisor: Robin Kirk

**Side-to-side weight-bearing asymmetry during standing and hip-carrying posture: a cohort study comparing parous and nulliparous females.**

Author: Daniel Rollins

Supervisor: Nico Tanguy

**A study into the prevalence and type of work-related musculo-skeletal injuries (WRMSs) experienced by osteopaths and physiotherapists**

Sarah Zaki

Supervisor: Phyllis Woodfine

*Comparative critiques (ALP students)*

**Title: Informed Consent: A critical exploration of its significance and interpretation with respect to Osteopathic and Physiotherapeutic practice**

Author: Denise Coleman

**Room for 'Quality' Improvement?**

Yvonne McNiven

**A comparative critique of osteopathy and physiotherapy with particular regard to the key issues of 'osteopathy, private practice and the NHS**

Julia Sokhi

A comparative critique of the profession development of physiotherapy and osteopathy: where they have come from, where they are now and what the future holds.

James Ross

*Annex A*

**Abstracts:**

**Self-report of neck and shoulder pain by staff of The Open University: a survey**

Mandy Banton

Supervisor Maria Caunce

**Abstract:** Work-related upper limb disorders are ergonomic somatic conditions caused or aggravated by repetitive or forceful work performed in awkward and/or prolonged positions. Since the widespread introduction of computers to the office environment, an association has been proposed between work involving computing equipment and the development of neck/shoulder pain.

**The Open University is the United Kingdom's largest university, employing around 5000 central staff, most of whom use computing equipment regularly to perform their work.**

**The study utilises a survey design to investigate the perceptions of Open University staff about neck/shoulder pain and therapeutic interventions tried for it. The study aims to identify the demographic, ergonomic and predisposing factors associated with neck/shoulder pain and to assess the satisfaction of respondents with various interventions.**

**The study demonstrates an association between volume of computing equipment use and neck/shoulder pain as well as female gender and neck/shoulder pain experienced at work. It also highlights the role of predisposing factors such as prior neck/shoulder injury in the occurrence of neck/shoulder pain at work. Manual therapy and exercise interventions are rated as effective.**

**Attitudes of occupational health practitioners regarding communication with manual therapists**

David Black

Supervisor: Heath Williams

Abstract:

Aims/Objectives:

To investigate the attitudes of Occupational Health Practitioners (OHPs) towards referring

workers with low back pain to manual therapists — osteopaths, physiotherapists and chiropractors. Specifically:

- o to determine the reasons why workers with low back pain are referred to particular therapists
- o to determine whether established clinical guidelines regarding choice of therapist are followed during this referral process.

- To examine how the attitudes of OHPs towards manual therapists affect their expectations of inter-professional communication.

Methods:

Questionnaire-based, using a self-administered questionnaire that was sent to a random selection of OHPs practicing in the north east of England.

### **An investigation of intraexaminer and interexaminer reliability in the measurement of cervical active range of motion using the cervical measurement system (CMS)**

Nicholas P. Burns

Supervisor: Mary Penn

**Abstract:** Producing accurate measurements of joint ranges of motion is important for reliable interpretation of research studies. For clinical validity, the aim of this investigation is to explore the intra-examiner and inter-examiner reliability in the measurement of cervical active range of motion using the Cervical Measurement System (CMS).

#### 1 Methods

In the outpatient clinic at the London School of Osteopathy, non-symptomatic subjects from the student body (n=8) were randomly assessed in a test, re-test design study using a standardized measurement protocol. Measurements were taken in the order of: left lateral flexion, right lateral flexion, flexion, extension, left rotation and right rotation, in accordance with the manufacturers guidelines. Subjects were deemed suitable for selection if they were non-symptomatic, i.e. did not presently suffer from neck pain or dizziness, and had not experienced whiplash, neck trauma / injury, or dizziness in the past year.

#### 2 Results

Reliability of this study results were poor statistically, although certain trends of increasing ranges is expressed by the Intra-examiner Correlation Coefficient, for lateral flexion was (0.8) and above, with variable 95% limits of agreement. It has been made clear that thorough training is necessary in the use of an appropriate cervical measuring device to reduce examiner error and therefore better quality results, a more thorough subject selection questionnaire, a full case history should be taken for all who pass the initial selection process, as this will add to the safety and professionalism of the study.

#### Left Lateral Flexion

The Correlation Coefficient was used to assess for Intra-examiner reliability, for examiner A, in Left Lateral Flexion, the Correlation coefficient (r) = 0.7370, the one-tailed P value is 0.0185, considered significant.

For intra-examiner B reliability, Correlation coefficient. (r) = 0.8809, the one-tailed P value is 0.0019, considered very significant.

Inter-Examiner A-B reliability, the Correlation coefficient (r) = 0.7241, The one-tailed P value is 0.0211, considered significant.

### **A comparison of contemporary osteopathic practice in Germany and in the United Kingdom**

Jenny Borst

Supervisor: Martin Collins

**Abstract:** The hypothesis which was supported by results was that German and British osteopathy differ philosophically and practically. 195 German Diplom Osteopathie osteopaths were surveyed with a version of the General Osteopathic Council Snapshot Survey questionnaire. 77 complete replies were compared to recent data from the General Osteopathic Council.

German osteopaths were likelier to be females working alone and have fewer years of practitioner experience. German practitioners work longer days and treat slightly more patients. Diagnoses and treatment techniques differ between countries. German osteopaths tend to diagnose visceral and cranio-sacral disturbances while British osteopaths diagnose soft-tissue injury. Cranio-sacral,

visceral and functional techniques are utilised more in Germany with less high velocity thrust usage recorded. Soft-tissue stretching, joint articulation and high velocity thrusts are used by British osteopaths. More German osteopathic treatment has higher levels of personal health insurance funding while British patients most often fund themselves.

Keywords: osteopathy AND Germany; osteopathic medicine; complementary therapy; clinical practice;

**A Study Looking at the Effects Hamstring Stretches, within an Osteopathic Treatment, have upon Perceived Change to Lower Back Pain, Using an adaptation of the Western Ontario and McMaster Universities (WOMAC) Index Questionnaire**

Author: Marcus Bernini

Supervisor: Heath Williams

**Abstract:** This study investigated the relationship between bilateral static hamstring stretches and perceived lumbar spine pain levels. Two groups of subjects were used. A control group who received osteopathic treatment to the lumbar spine without static hamstring stretches and the study group who received osteopathic treatment with static hamstring stretches. The Test subjects then asked to complete the Western Ontario and McMaster Universities (WOMAC) Index Questionnaire which was used to determine their level of pain in the lumbar spine both before and after treatment. The experimental hypothesis was those who received static hamstring stretches would perceive to have less lower back pain (LBP) than those who did not. There was no significant difference in pain perception between the two treatment protocols, using a Mann - Whitney Test ( $p < \text{or} = 0.05$ ), the two-tailed P value was 0.5953, which was considered not significant. These results confirm that hamstring stretches may not be the most important aspect of a treatment plan for having an immediate effect in reducing lower back pain. During this study the differences in perceived pain after treatment between acute and chronic patients, again using the Mann-Whitney non-parametric t-test ( $p < \text{or} = 0.05$ ) was significant (P value = 0.0133) and confirms other research involved in the difference in effects osteopathic treatment has upon acute and chronic patients. However further research into the long term effects of hamstring stretches upon lower back pain is needed.

**Title: A study into health, lifestyle and the perception of Osteopathy within the community of the City and district of St Albans, Hertfordshire**

Andy Clayson

Supervisor: Robin Kirk

**Abstract:** The study investigates health, lifestyle and the perception of osteopathy from randomly selected participants of leisure and arts facilities in St Albans, Hertfordshire. The study population was comprised of 112 adults (59 male and 53 female) aged between 20 and 60 plus. Each participant completed a questionnaire to ascertain some key health lifestyle indicators and identify their perception of osteopathy. The lifestyle indicators used were physical activity, diet (fruit/vegetable intake), alcohol consumption and whether the participants smoked. Department of health guidelines were used to interpret this information. The data obtained was analysed through Microsoft Excel; statistical analysis was carried out through Graphpad InStat. Results showed that 78% of the participants subjectively perceived their health as good or very good. General awareness of osteopathy was identified by 88% of participants. The study identified 23% of the population as having previously visited an osteopath. Osteopathy was seen as the first choice practitioner for back pain with 37% of the sample population agreeing. Physiotherapy was seen as the first choice practitioner for joint or muscular injury with 59% of the population concurring. Lifestyle factors were analysed individually and correlated with the perception of osteopathy. Participants consumed 5 pieces of fruit/vegetables on average 4.1 days per week. Physical activity of 30 minutes was carried out on average 3.9 days per week. Alcohol consumption was 88% for men and 89% for women smokers comprised 29% of the male and 30% of the female population. Participants adhering to the individual healthy lifestyle indicators identified in statistically greater numbers their belief for the amount of conditions osteopathy was suitable for.

## **Posture at the computer workstation and its effect on musculoskeletal health**

Paula Collier-Wood

Supervisor: Dawn Limbert

Abstract:

Objectives:

Musculoskeletal problems such as neck, shoulder, elbow and wrist pain are frequently observed in those who use computers regularly. Identifying postures that may pre-dispose these disorders could prevent pain and suffering, psychosocial distress and lost time from work. Therefore the aim of this study is to identify at-risk postures and determine whether there is a correlation between posture at the computer workstation and musculoskeletal health.

Method

30 male workers at a design company specialising in computer animation were each measured using a goniometer whilst they sat at the computer workstation. Six angles were taken: head tilt (gaze angle), shoulder abduction (abd) and shoulder flexion (flex), elbow flexion (flex) and wrist extension (ext) and wrist abduction (abd). They then completed a musculoskeletal health questionnaire (Appendix I). The angles representing their posture were then compared to the questionnaire to establish if there was any correlation.

Results

Using Pearsons co-efficient, shoulder abduction was found to have a strong correlation with neck pain and shoulder flexion had a weaker correlation with neck pain.

However, when the results were entered into SPSS; no trends were established when neck pain was compared to shoulder posture, shoulder pain to shoulder posture or elbow pain to wrist posture. There was an indication that a trend may develop for 'shoulder abduction and months at work' and 'neck pain and overweight' categories. Also a weak trend showed 'shoulder posture may be linked to shoulder and neck pain' and 'obesity and neck and shoulder pain' may be linked. To establish this as statistically significant more subjects need to be involved in the study.

Conclusion

Although one set of results showed a strong correlation, only weak trends emerged with the SPSS results, showing there was no statistical evidence of posture at the computer workstation having an affect on health. This was likely to be because of design errors, particularly the small cohort. If these errors are addressed, it is possible that the trends identified may become statistically relevant.

## **An examination of pressure-pain thresholds at myofascial trigger points, following muscle energy technique or ischaemic compression treatment**

Author: Jamie Dearing

Supervisor Fiona Hamilton

**Abstract:**

**Background and Objectives:** Ischaemic compression and muscle energy techniques are commonly used by manual therapists to treat myofascial trigger points. The aim of this controlled study was to examine pressure-pain thresholds at myofascial trigger points in the upper trapezius of asymptomatic patients, following either ischaemic compression or muscle energy technique.

**Methods:** Subjects (n=50) were screened for myofascial trigger points in the upper trapezius and pain pressure threshold measurements were taken using a manual algometer before and after manual treatment. Subjects were allocated to one of three groups, receiving either a 90 second ischaemic compression technique, a muscle energy technique or listening to 3 minutes of relaxing music (control).

**Analysis:** Compared to pre-treatment levels, post-treatment myofascial trigger point sensitivity was significantly reduced in both the ischaemic compression group ( $P < 0.001$ ) and the muscle energy group ( $P < 0.001$ ), but not the control group ( $P > 0.05$ ), when analysed using within-group paired t-tests. A one-way analysis of variance and post hoc analysis revealed a significant difference between the muscle energy group and the control ( $P < 0.05$ ), and a very significant difference between the ischaemic compression group and the control ( $P < 0.01$ ). No significant difference was found between the two treatment groups ( $P > 0.05$ ). The within-group effect size was measured using Cohen's  $d$  and found to be large for the ischaemic compression group ( $d = 0.77$ ), medium for the MET group ( $d = 0.64$ ), and less than small for the control group ( $d = 0.12$ ).

**Conclusion:** This study shows that both ischaemic compression and muscle energy technique produce a significant reduction in pain sensitivity at myofascial trigger points in the upper trapezius muscle. Ischaemic compression appeared to be more effective than muscle energy technique in reducing pain sensitivity at these trigger points in asymptomatic subjects.

**Key Words:** Myofascial trigger point, pressure-pain threshold, ischaemic compression, Muscle energy technique, trapezius, post-isometric stretch, algometry, osteopathy.

### **A study looking at the role of nutrition within the osteopathic profession**

Tracy Elroy

Supervisor: Derrick Edwards

**Abstract:** Nutrition has been shown to have a major role in health and disease. In line with current “draft benchmark statements” for osteopaths with the inclusion of “understand the principles of diet and dietetics” based on this new development within osteopathy this study explores the following:

- Whether osteopaths use nutritional intervention as part of their daily practice
- Whether osteopaths consider nutritional intervention fundamental to osteopathic healthcare
- Whether osteopaths consider that their undergraduate education have trained/prepared them in the use of nutritional intervention
- However, if osteopaths do not give nutritional advice, whom do they refer their patients to?

Design: questionnaire survey. The questionnaire was devised for the study the aim of ascertaining the above information.

Subjects: 180 systematically selected registered osteopaths

Results: This study found that 66% of total respondents (osteopaths n=86) agreed that nutrition is a fundamental part of osteopathic healthcare. 58% of osteopaths were using nutritional intervention as part of their daily practice, 65% recalled specific guidance using nutritional intervention at college, 42% recall clinic tutors using nutritional intervention. It was also found 59% did not feel confident in giving nutritional advice within their practise. In addition 78% of respondents were not aware of the current draft subject benchmark statements regarding “principles of diet and dietetics” and S2K

Conclusion: The researcher found that at present there is limited research regarding aspects of health promotion and nutrition, within the osteopathic profession. It is hoped that this study can be used as a stepping stone for further research into the benefits of applying nutritional advice within osteopathic treatments as outlined in the BMS and S2K guidelines for health promotion

**Title: A study to evaluate knowledge of what osteopathy is, the scope of what it can treat and the effect this has on referral rates amongst NHS consultants in rheumatology, neurology, orthopaedics, palliative care and general practitioners in England.**

Louise Goodey

Supervisor: Phyllis Woodfine

### **Abstract:**

**PURPOSE:** To evaluate knowledge of what osteopathy is, the scope of what it can treat, referral rates and factors affecting referral amongst NHS consultants in rheumatology, neurology, orthopaedics, palliative care and general practitioners in England.

**METHODS:** A cross sectional survey design was used. 400 self-reporting questionnaires were sent out, with an overall response rate of 17%. The study population comprised of 68 adults, 49

men and 19 women aged between 26 to 60+ years. Of these 14 were GP's, 13 neurologists, 21 rheumatologists, 10 orthopaedics and 10 palliative care doctors. The data was analysed using Microsoft Excel and statistical analysis were carried out using Graphpad Instat.

**RESULTS:** Results showed that whilst there was some confusion between osteopathy and physiotherapy, the highest number of doctors 62% believed osteopathy to be a complementary therapy compared to the 44% who believed it to be alternative. The orthopaedic doctors demonstrated the highest level of understanding overall. 60% of doctors believed osteopathy could treat musculoskeletal disorders (MSD) with 36% referring to osteopathy. Of those doctors that had a higher level of understanding of osteopathy 75% believed MSD's could be treated compared to 63% who had a lower understanding. Referral for MSD's was 35% higher for the group with higher understanding.

### **An investigation into the palpatory threshold of fifth year students at the London School of Osteopathy**

Paul Henighan

Supervisor: Heath Williams

Abstract:

**Design:** A repeated measure test was carried out to see if there was consistency across the group and between dominant and non-dominant hand. Seventeen subjects participated in the study. Palpation thresholds were recorded for dominant and non dominant hands on two occasions by moving a monofilament wire under an increasing number of sheets of paper.

**Results:** There was no significant difference in the palpatory threshold between the dominant and non dominant hand on either test. There was a significant difference between the results test one and test two for the dominant hand and the non dominant hand.

**Conclusion:** The investigation appeared to show a marked learning effect between the two tests. Further research with improved control measures and consensus training to standardise the search procedure may lead to more reliable results.

### **Osteoporosis in adult males: a survey of the awareness of the predisposing factors and preventative management**

Author: Hugo Isaac

Supervisor: Robin Kirk

Abstract: Despite significant progress in knowledge about osteoporosis, public awareness is required for effective management if precautions are to be taken.

The aim of this study is to evaluate the educational status of men in the UK population, and their awareness about the disease, its risk factors, preventative management and sources of information. Prevention is seen as the most effective and cost efficient way of dealing with osteoporosis, but little focus has been placed on educating the male population in comparison to women. This study took the form of a questionnaire survey. A total of 115 males and 83 females (the majority from professional backgrounds), aged between 19 and 78, fully completed the questionnaire. After the questionnaires were returned an information sheet from the National Osteoporosis Society was sent out to the population regarding the risk factors and preventative management of the disease. The results of the survey showed that 82% of the male population admitted to little or no understanding of osteoporosis with 17% stating that their knowledge was sufficient and only 1% stating that they knew a great deal. A high proportion, 61% of the male population, stated that they thought knowledge of the risk factors and preventative management were important as opposed to 5% who thought it unimportant. The majority of the male population claimed to be prepared to make lifestyle changes, but nearly all felt that more education was needed both personally and for the general public.

It would appear that a long term education programme needs to be established. All constituents of the health care system can play an important role in this, including Osteopaths and all those providing symptomatic relief of all those already suffering.

## **Osteopathic manipulation and exercise in the treatment of chronic neck pain: a prospective study**

**Idris Moudi**

**Supervisor: Dawn Limbert**

Abstract

**Study design** A non-randomised unblinded controlled trial was performed over a four-week period. Participants filled out questionnaires regarding pain and disability both before and after intervention.

**Aims and objectives** This study aims to investigate the efficacy of stability exercise regimens, combined with osteopathic treatment, as a method of pain reduction in patients suffering from chronic pain, compared with those receiving osteopathic manipulative treatment alone.

**Summary of background data** There is an abundance of research suggesting that exercise combined with manipulation is effective in reducing pain and disability. However, little of this relates to osteopathy and there is data to suggest prescriptive exercise is not widely taught in osteopathic colleges.

**Methods** A total of eleven participants were divided into Group A (n=7) comprised of three males and four females, with mean age of 46.3. Group A received manual therapy combined with a structured exercise programme. Group B (n=4) comprised of two males and two females, with a mean age of 41.5. Group B received manual therapy alone. Group A was given a sheet of four exercises, (appendix 3) including craniocervical flexion, thoracic extension, exercises for the lateral rotators of the glenohumeral joint and a stretch of pectoralis major and minor muscles. For the purposes of this study osteopathic manipulative treatment is defined as a range of manual techniques performed by undergraduate osteopathy students. This range of techniques includes soft tissue manipulation, articular techniques, digital friction, functional techniques, muscle energy techniques and high velocity low amplitude thrusts.

**Results** None of the data showed statistical significance on analysis. However, all participants reported that they felt better post-intervention. Group A showed increased mean reduction in pain scores (p=0.6319), increased mean improvement in scores relating to their understanding of the cause of their condition (p> 0.9999), an increased mean improvement in perceived control scores (p=0.7728), an increased mean reduction in disability scores (p=0.2487), and an increased mean improvement of coping score (p=0.3852), when compared with Group B.

**Conclusion** According to data analysis, there was no statistical significance found. Therefore, the null hypothesis must be accepted. The exercise and manipulation intervention administered to Group A showed a clinical benefit, although not significant. This clinical benefit warrants further investigation. Mechanical neck pain continues to be a common and socio-economically costly presentation, and as such, further research into the area would be of value.

## **A study to investigate the perceptions of osteopathy within the Metropolitan Police Service (MPS)**

**Philip Paton**

**Supervisor: Robin Kirk**

- 3 Abstract: **The purpose of this study was to gain an understanding of perceptions and awareness of osteopathy within the Metropolitan Police Service (MPS) amongst police officers and civilian support staff. It seeks to identify if they perceive osteopathy as a treatment solely for back pain and to see what their treatment of choice has previously been. Finally it aims to determine if the osteopathic profession has been successful in promoting osteopathy as a system of health care for a wide variety of complaints to such a group as the Police Service.**

The experience of the researcher, a serving Metropolitan Police Officer is that the baseline knowledge of osteopathy among MPS staff is generally poor and that it does not appear to be the treatment of choice for individuals who have previously received physical therapies.



A questionnaire was designed and sent to all police officers and civilian staff within the Territorial Support Group (TSG) from all five policing areas of London. A total of 448 questionnaires were sent out via internal MPS intranet. There were 272 returns. However, 14 were returned completed incorrectly and 12 were not saved prior sending back via email. This left 246 questionnaires available for analysis.

Findings of the study revealed that osteopathy is commonly recognised by MPS staff (93%). However, physiotherapy proved to be the most popular treatment of choice. It also highlighted the lack of awareness and understanding of the wide range of conditions which osteopathy can treat. The results are presented using graphs, charts and percentages.

### **Side-to-side weight-bearing asymmetry during standing and hip-carrying posture: a cohort study comparing parous and nulliparous females.**

Author: Daniel Rollins

Supervisor: Nico Tanguy

**Abstract:** The purpose of this study was to determine whether parous females exhibit an increased side-to-side weight-bearing (WB) asymmetry during static upright posture and asymmetrical hip-carrying tasks. Seventy females (35 parous; 35 nulliparous) participated in the study. The study utilised an adjustable weight manikin, equivalent to the average weight of a female child at the age of 6 months (7.5kgs: *Load 1*) and 24 months (12kgs: *Load 2*), to be carried on the hip. A participant questionnaire provided data on demographics, incidence and location of pain distal to the Lumbar 1 (L1) vertebra.

Participants performed 3 standing trials for each load condition (*Unloaded, Load 1* and *Load 2*) on identical sets of digital scales. Weight-bearing distribution (WBD; average inter-limb weight-bearing differences over 3 trials) were calculated and normalised for participant weight.

Inter-group analysis: no significant differences in asymmetrical WBD were found between parous and nulliparous groups. However, 10% of the study population did exhibit a greater than expected WB asymmetry whilst load-carrying, of which 71% were from the parous group.

Intra-group analysis: asymmetrical load-carrying significantly affects side-to-side WBD in both groups, with greater magnitudes of difference observed with heavier loads.

WBD was not significantly affected by the incidence of pain, age, BMI, perception of postural change or breastfeeding. The incidence of pain was elevated in participants with increased age, BMI and who reported postural change since giving birth.

The findings of this study provide a basis for future research and to inform osteopaths, and manual therapists alike, of the effects that asymmetrical load-carrying has on posture and WBD. This may then serve to inform treatment plans so that improved patient management and outcomes may be achieved.

### **A study into the prevalence and type of work-related musculo-skeletal injuries (WRMSs) experienced by osteopaths and physiotherapists**

Sarah Zaki

Supervisor: Phyllis Woodfine

#### **Abstract**

**Aim:** to investigate the prevalence and type of work-related musculoskeletal injuries (WRMSIs) experienced by registered osteopaths and physiotherapists.

**Method:** 200 questionnaires were sent to an equal number of osteopaths and physiotherapists, selected randomly from the GOsC and MACP registers. The findings were compared to data from a number of previous studies.

**Results:** 57% (n=57) of osteopaths and 63% (n=63) of physiotherapists replied giving a total response rate of 60% (n=120). 70.2% (n=40) of osteopaths and 57.1% (n=36) of physiotherapists in this study reported that they had experienced a WRMSI. Chi-squared, Yates correction and Fisher's exact tests were used to establish statistical significance.

**Conclusion:** The low back had the greatest prevalence of injury, followed by wrist and hands, upper back, neck, thumbs and shoulders. There was no statistically significant difference between the two populations. Osteopaths reported the highest rate of incidence during their training,

physiotherapists reported their highest rate of incidence when they had been practising for 10 years or more.

### *Comparative Critiques*

#### **Title: Informed Consent: A critical exploration of its significance and interpretation with respect to Osteopathic and Physiotherapeutic practice**

Author: Denise Coleman

#### **Introduction**

##### **Aims and Objectives:**

To identify the evolution and critical interpretation of the construct 'Informed Consent' in relation to the provision of Physiotherapy as compared to the delivery of Osteopathy.

This is needed because there is the potential to emphasise and interpret the concept of informed consent differently according to each profession. It is possible that the conceptual frameworks from within which the two professions operate have an influence upon this interpretation. The result of this critical analysis may be to highlight any potential conflicts, or differences in emphasis between the two professions, if so the significances of these will be discussed. As the author proposes to be a member of the Osteopathic profession it would seem prudent to explore and comment on any differences of interpretation that may appear to arise. This should help to ensure best possible practice in Osteopathic healthcare. (S2K, GOsC: C5; E3, 4; L3.)

#### **Room for 'Quality' Improvement?**

Yvonne McNiven

This study sought to compare the Midwifery Profession with the Osteopathic Profession. These have been chosen due to the similarity in size of its members, the aspect of professional autonomy and the point of care delivery that they provide.

Midwifery is long established and well integrated within the National Health Service. The Profession has learnt over many years how to adapt and survive in the rapidly changing health care market. Midwives have had to constantly change and update their practice as more and more research has been conducted. Midwifery is a dynamic career with straightforward laws and professional standards protecting the professionals who choose that occupation as well as the public who have to use that service.

Osteopathy is very young in professional terms having established itself with the Osteopaths Act in 1993. The challenge for the General Osteopathic Council was not necessarily to convince the public that osteopathy works, but rather to convince established practicing osteopaths that Regulation was the right way forward. Most standards are now in place, research has begun and students graduating from osteopathic education have a much better understanding of what is expected of them.

#### **A comparative critique of osteopathy and physiotherapy with particular regard to the key issues of 'osteopathy, private practice and the NHS**

Julia Sokhi

Summary: In carrying out this comparative critique, I propose to explore the key issues of 'osteopathy, private practice and the NHS' in order to identify common ground and differences between my previous health care profession of physiotherapy with that of my current position of a soon to be qualified osteopath. This comparative critique will initially compare the history of osteopathy, together with that of physiotherapy, and demonstrate how both professions developed and evolved. Furthermore it will demonstrate how the professions have differed in their relationship with the orthodox medical establishment, and how politics and culture have influenced their professional growth. Current issues of regulation and evidence based practice which concern both osteopathy and physiotherapy and are relevant to the aforementioned key issues will also be critically evaluated. Data from a number of different published sources will be sought out and used as the platform for the critique.

A comparative critique of the profession development of physiotherapy and osteopathy: where they have come from, where they are now and what the future holds

James Ross

**Abstract:**

**Study design** A non-randomised unblinded controlled trial was performed over a four-week period. Participants filled out questionnaires regarding pain and disability both before and after intervention.

**Aims and objectives** This study aims to investigate the efficacy of stability exercise regimens, combined with osteopathic treatment, as a method of pain reduction in patients suffering from chronic pain, compared with those receiving osteopathic manipulative treatment alone.

**Summary of background data** There is an abundance of research suggesting that exercise combined with manipulation is effective in reducing pain and disability. However, little of this relates to osteopathy and there is data to suggest prescriptive exercise is not widely taught in osteopathic colleges.

**Methods** A total of eleven participants were divided into Group A (n=7) comprised of three males and four females, with mean age of 46.3. Group A received manual therapy combined with a structured exercise programme. Group B (n=4) comprised of two males and two females, with a mean age of 41.5. Group B received manual therapy alone. Group A was given a sheet of four exercises, (appendix 3) including craniocervical flexion, thoracic extension, exercises for the lateral rotators of the glenohumeral joint and a stretch of pectoralis major and minor muscles. For the purposes of this study osteopathic manipulative treatment is defined as a range of manual techniques performed by undergraduate osteopathy students. This range of techniques includes soft tissue manipulation, articulatory techniques, digital friction, functional techniques, muscle energy techniques and high velocity low amplitude thrusts.

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**Conclusion.** According to data analysis, there was no statistical significance found. Therefore, the null hypothesis must be accepted. The exercise and manipulation intervention administered to Group A showed a clinical benefit, although not significant. This clinical benefit warrants further investigation. Mechanical neck pain continues to be a common and socio-economically costly presentation, and as such, further research into the area would be of value.

# Oxford Brookes University

## ANNUAL RESEARCH REPORT FROM OXFORD BROOKES UNIVERSITY (2006-2007)

### NCOR SUBMISSION

In 2006 the School of Health and Social Care at Oxford Brookes University obtained RQ status for a new BOST(Hons) and a MOST degree. Together with the current BSc (Osteopathy)Hons degree this has raised the need for the development of research capacity in preparation for the increasing demand for experienced dissertation supervisors. Dr Delva Shamley was appointed in 2007 as Research Lead with the express remit of developing research capacity and output in the osteopathic programme. A strategic direction has been agreed and we will work closely with NCOR to achieve the set goals.

### Undergraduate Dissertation projects (2007)

This project is the culmination of a 3 yr framework for research education developed by the school 4 years ago. Dissertation research groups are encouraged to facilitate debate.

*Examples include:*

Systematic review of the effect of whole body vibration.

Narrative review of the treatment for IBS

Review of the effects of exercises for LBP.

Patients perceptions of the teaching clinic environment

The effect of diaphragm release on lung function tests.

Multisensory Integration in pelvic mobility diagnosis.

### Research Active staff

*Dr D Shamley*

- Shoulder kinematics and muscle activity following treatment for breast cancer.
- A randomized control trial to determine the effect of a DVD-based exercise programme to prevent shoulder morbidity following treatment for breast cancer.
- A randomized control trial to determine the effect of a shoulder conserving exercise programme on the risk factors for heart disease in spinal cord injured patients.
- Current outcome measures for determining mobility in spinal cord injured patients.

*Jorge Esteves –Registered for a PhD*

- Critical Neuropsychological Factors in the Development of Expertise in Osteopathic Medicine
- Investigating osteopath's attitudes and practices with respect to referral and inter-professional collaboration
- Patient expectations of osteopathic treatment
- Osteopathy for Otitis Media

Mary O'Leary –Registered for a MSc

A systematic review of the reported incidence of adverse events for cervical HVT.  
**CPD in research**

An ongoing programme of workshops/study days in research is being run for the clinical tutors, academic staff and members of the Oxford Research Hub.

These include:

- Critical appraisal techniques
- Developing a research question
- Research designs
- Supervising undergraduate dissertations
- The truth about trials.
- Understanding the ethics procedure

### **Collaborations**

The programme is very interested in developing collaborations with institutes of Osteopathy and other health care professions. Current collaborations include:

- A randomized control trial to determine the effect of a shoulder conserving exercise programme on the risk factors for heart disease in spinal cord injured patients
  - Churchill Hospital, Oxford and St Bartholomew's Hospital, London.
  - John Radcliffe Hospital, Oxford
- A randomized control trial to determine the effect of a shoulder conserving exercise programme on the risk factors for heart disease in spinal cord injured patients.
  - Stoke Mandeville Hospital, Buckinghamshire.
- The effectiveness of osteopathic management for Otitis Media in reducing the waiting list for grommets
  - John Radcliffe Hospital, Oxford.
- Jorge Esteves is a member of the steering group for the development of the SDC
- OBU are supporting NCOR in the development of a Delphi study to determine the research priorities for the profession
- Crossmodal Research Lab, Experimental Psychology, University of Oxford  
Movement Science Group, School of Life Sciences, OBU

### **Peer Reviewed Publications/Submissions**

2006 **Shamley D**, Sriniganathan R, Weatherall R, Oskrochi R, Watson M, Ostelere S, Sugden E. Changes in shoulder muscle size and activity following treatment for breast cancer. *Br Canc Res and Treatment*, Nov, 106(1):19-27.

2006 Reilly KA, Barker KL and **Shamley D** (2006). A systematic review of lateral wedge orthotics – how useful are they in the management of medial compartment osteoarthritis? *The Knee* 13;177-183.

- 2006 Reilly KA, Barker KL, **Shamley D**, Chir SS (2006). Influence of foot characteristics on the site of lower limb osteoarthritis. *Foot and Ankle International* 27;3: 206
- 2007 **Esteves J**, Geake J, Spence C (submitted). /Knowledge representation, causality and analogical reasoning in osteopathic medicine: preliminary results from an exploratory study.
- 2007 **Esteves J**, Geake J, Spence C (submitted). /Investigating multisensory integration in an osteopathic clinical examination setting.
- 2007 **Shamley D, Oskrochi R, Sriniganathan R, Lascurain I, Sugden E.** Altered 3 – Dimensional kinematics of the shoulder complex following treatment for breast Cancer. (Submitted)

### **Conference Presentations/Abstracts**

*Dr Delva Shamley*

- 2007 – Shoulder kinematics and muscle activity following treatment for breast cancer; implications for treatment. World Congress of Physical Therapy, Vancouver.

*Jorge Esteves*

- 2007 Esteves J, Geake J, Spence C . Critical Neuropsychological Factors in the Development of Expertise in Osteopathic Medicine/. Presentation at School of Health and Social Care Osteopathy research seminars

Esteves J, Geake J, Spence C. How do osteopaths use their senses in an osteopathic clinical examination? Poster Presentation at AMEE 2007 Association for Medical Education in Europe Conference 25-29<sup>th</sup> August 2007. Trondheim, Norway.

Esteves J, Geake J, Spence C . How do osteopaths use their senses in an osteopathic clinical examination? Poster Presentation at Oxford Autumn School in Cognitive Neuroscience, University of Oxford, September. Oxford, UK.

Esteves J, Spence C and Geake, J (2007). How do osteopaths use their senses in an osteopathic clinical examination? Poster Presentation at Body Representation Workshop, University of Trento, October 2007. Rovereto, Italy.

Esteves J, Spence C and Geake, J (2008). Investigating multisensory integration in an osteopathic clinical examination setting. Invited Platform Presentation at Osteopathy 2008, Osteopathic Research Conference, NCOR/General Osteopathic Council, 01<sup>st</sup> February 2008. London, UK.

Esteves J, Geake J, Spence C (2008). knowledge representation, causality and analogical reasoning in osteopathic medicine: results from a lexical decision-task. Platform Presentation at Osteopathy 2008,

Osteopathic learning and practice – a global future, BSO and General Osteopathic Council, 03<sup>rd</sup> February 2008. London, UK.

### **Invited Lectures and External consultancies**

#### *Shamley, D*

- 2007 – Altered kinematics of the shoulder after treatment for breast cancer - the implications for practice. The Breast Care group, St Bartholomew's Hospital, London.
- 2006 - Lecture to department of Breast Oncology (Churchill Hospital, Oxford) on the shoulder after treatment for breast cancer.
- Research lecturer and AHP consultant for the Thames Valley Research and Development Services Unit, Oxfordshire.
- Reviewer for Canadian J of Physiotherapy; Br Canc Res and Treatment; Elsevier academic textbooks

#### *Esteves, J*

- Reviewer for Manual Therapy, the International Journal of Osteopathic Medicine and Brookes e-Journal of Teaching and Learning.
- Esteves J, Spence C and Geake, J (2007). Investigating multisensory integration in an osteopathic clinical examination setting. Presentation at Department of Psychology, School of Social Sciences and Law, Oxford Brookes University, December 2007

### **Grants**

#### *Shamley, D*

2006 - £30 000 – Squires Foundation. Development of DVD-based home programme of exercises following treatment for breast cancer.

2006 - £25 000 - Thames Valley Partnership Board Phase 2 funding.

### **NCOR Oxford Research Hub**

This is an enthusiastic group which is hosted by OBU and meets every 2 months. Sessions have included the development of the case history card for osteopathy and familiarization with the various measurement tools in the research laboratory at the School of Health and Social Care. The group has started to develop research questions in order to take a group project forward for funding.

## FINANCIAL STATEMENT

1<sup>st</sup> October, 2006 to 30<sup>th</sup> September, 2007

### INCOME

|               |                |
|---------------|----------------|
| GOsC          | £28,000        |
| BOA           | £2,000         |
| OEIs          | £8,000         |
| <b>TOTAL:</b> | <b>£38,000</b> |

### EXPENDITURE

#### Administration

Postage and telephone £3000.00

#### Salaries

Administration support (Shirly Mathias) £3,312.00  
Research Officer (Carol Fawkes) £29,925.00

#### Travel costs

Hub visits and NCOR travel £2,278.00

#### Hospitality

£211.00

**TOTAL: £38,726.00**

**DEFICIT -£726.00**



### ***Background to the development of the National Council for Osteopathic Research (NCOR) and the draft strategic plan for osteopathic research.***

The National Council for Osteopathic Research was constituted in 2003 in order to explore and assure the place that osteopathy has to play in Healthcare. The Council was established by the General Osteopathic Council, the British Osteopathic Association and all the recognised teaching colleges within the United Kingdom.

A chairman for the National Council for Osteopathic Research was appointed on 1<sup>st</sup> March, 2003 (Professor Ann Moore). Briefly the role of Chairman includes the following:

1. Chair and lead meetings of NCOR.
2. Work with stakeholders to establish the research mission and objectives of NCOR.
3. Lead NCOR towards achieving its mission.
4. Facilitate contact and liaise with funding bodies, government departments, foundations, Healthcare councils, research councils and institutes of Higher Education.

The National Council for Osteopathic Research has met regularly since March to discuss its operation but its first major task has been to produce a draft five-year strategic plan for the development of osteopathic research within the United Kingdom. Rather than a prescriptive and directive plan, the strategy constitutes a framework within which osteopathic research can develop and flourish.

### ***The Development of the Strategic Plan***

In order to seek views on research from the osteopathic profession a questionnaire (see appendix 1) was circulated to regional and special interest groups as well as members of the National Council for Osteopathic Research. The responses to the questionnaire were analysed descriptively and thematically. A summary is to be found in Appendix 3. The responses to the questionnaire were used to inform a Strategic Planning Event which took place in October 2003. The participants in the Strategic Planning Event are listed in Appendix 4.

The programme for the event and worksheets used throughout the two days are to be found in Appendix 5.

### ***Aims of the Strategic Planning Event***

The Strategic Planning Event aimed to achieve the following:

1. To establish a vision statement summarising what it is hoped can be achieved in five years in terms of osteopathic research development.
2. To establish a set of mission statements for the National Council for Osteopathic Research which will contribute to the attainment of the vision for the future.
3. To identify five main strategic areas for development by the National Council for Osteopathic Research.
4. To identify goals for each of the identified strategic areas.
5. To develop action plans for each of the identified goals.

A further aim was to identify any infrastructure needing to be put in place in order to support the action plans described.

## **Appendix**

### **The Strategy**

#### **Vision Statement for osteopathic research for the next five years**

The development of a profession-wide research culture which is inclusive, robust, credible, has national and increasingly international impact and benefits for osteopathic teaching, learning and patient care.

#### **Mission Statements**

1. To establish and develop a comprehensive information resource for osteopathic research in order to promote a mutual research dialogue within the osteopathic profession and with other related professions.
2. To create a forum that will develop and nurture a pan-professional osteopathic research culture, facilitate linkage of research to practice and identify national research priorities.
3. To develop a research governance framework and code of good practice in research for osteopathy which links with frameworks already developed by the National Health Service and the Research Funding Councils.
4. To increase and improve the profile of osteopathic research at national and international levels with policy makers, HEIs, the NHS and fund-holders.
5. To increase collaboration in research amongst osteopathic providers and HEIs nationally and with like minded researchers internationally to improve the teaching, learning and research nexus and the quality of osteopathic research generally.
6. To improve the quality and quantity of research outputs.
7. To develop appropriate channels for research dissemination e.g. websites, journals, etc.
8. To identify and nurture sources of funding for research activities.

## Constitution of National Council for Osteopathic Research

|  |   |
|--|---|
| Chair  | Professor Ann Moore   |
| The British College of Osteopathic Medicine (BCOM) | Dr Nick Walters<br>Succeeded in May, 2005<br>by Dr Heather Hinckley   |
| British Osteopathic Association (BOA)              | Mr Michael Watson   |
| The British School of Osteopathy (BSO)             | Ms Kate Nash, succeeded in<br>June, 2005 by Dr Martin Collins;<br>succeeded in 2006 by Mr Steven<br>Vogel, Head of Research |
| The College of Osteopaths (COET)                   | Dr Janine Leach   |
| The European School of Osteopathy                  | Dr Peter Collins succeeded in<br>March, 2005 by Mrs Brenda<br>Mullinger   |
| General Osteopathic Council (GOsC)                 | Ms Brigid Tucker<br>Mr Vince Cullen   |
| The London College of Osteopathic Medicine         | Dr Roderic MacDonald  |
| The London School of Osteopathy                    | Mr Robin Kirk (represented since<br>April, 2006 by Ms Dawn Limbert).  |
| NHS Practitioners' Representative                  | Mr Martin Pendry  |
| Oxford Brookes University                          | Mr Jorge Esteves  |
| Private Practitioners' Representative              | Mr Tim McClune  |
| Surrey Institute of Osteopathic Medicine (SIOM)    | Ms Reena Joshi  |
| Research Officer                                   | Carol Fawkes  |

## **Press Responses**

### **Response to Galloway Gazette 16-01-07**

Dear Sir,

We would like to point out a number of facts that were missing from your “Doctor on Call” feature. It is disappointing that Dr Smith has attempted to discuss two professions with very different philosophies and has failed to represent either in a meaningful way.

Dr Smith’s article provides the erroneous impression that osteopathy solely uses manipulation as a form of treatment. It should be made clear that osteopaths treat a wide range of age groups and conditions and employ a range of techniques suitable for the individual patient. Patient safety and well-being is of primary concern for osteopaths when administering treatment.

At the start of each new consultation a full case history and examination is carried out to identify if a patient is suitable for osteopathic treatment per se and the most suitable techniques to be used as part of a treatment programme. Diagnosis of the cause of a patient’s symptoms is made by examining their general health and then more specifically the structures of the body’s musculoskeletal system; misalignment of the spine is an outdated concept in osteopathic diagnosis. Unfortunately, Dr Smith has based much of his article on a systematic review of systematic reviews carried out by Professor Ernst which has been identified as having a number of flaws; these flaws have been published by a range of professional groups in the Journal of the Royal Society of Medicine (Moore A. A systematic review too far. *JRSM*. 2006;99:278).

In terms of the lack of evidence for osteopathy which has been cited in Ernst’s article, it should be made clear that osteopathy as a profession has embraced the need to build an evidence base and to this end created the National Council for Osteopathic Research in 2003. The National Council for Osteopathic Research is an initiative funded by the profession’s regulator, the professional association and all providers of osteopathic education in the United Kingdom: it is currently involved in a number of initiatives to promote an increase in the evidence base for the profession and the use of evidence in practice for the ultimate benefit of patients.

Professor Ann Moore, Chair of the National Council for Osteopathic Research  
Carol Fawkes, Research Officer for the National Council for Osteopathic Research and practising osteopath.

### **Response to Journal of Royal Society of Medicine.**

**2007;100:445**

The National Council for Osteopathic Research (NCOR) welcomes Professor Ernst’s interesting paper<sup>1</sup> concerning safety and spinal manipulation (SM). This is a topic taken very seriously by all osteopaths.

Unfortunately, the term adverse event (AE) does have negative connotations and wasn't clearly defined; minor increases in soreness are an anticipated treatment response experienced by many patients following examination and treatment when provocation tests are used routinely to reach an accurate diagnosis. A serious adverse event could be viewed more accurately as a reaction requiring urgent medical intervention.

SM is described as being of "unproven effectiveness" compared with non-steroidal anti-inflammatories (NSAIDs) but, unfortunately, some more recent high quality work seems to have been overlooked<sup>2,3</sup>. While it is true that SM is not currently subject to post-marketing surveillance, osteopaths are developing a standardised data collection tool, through NCOR, to gather long term prospective data concerning all responses to osteopathic treatment.

Risks associated with SM are not a new phenomenon to osteopaths. Pre-manipulative screening is routinely used, although this is not without difficulties; recent work has been published in the *International Journal of Osteopathic Medicine* reviewing the literature to highlight risk factors for SM<sup>4</sup>.

Osteopaths are currently funding a series of research proposals, through the General Osteopathic Council, investigating safety related to osteopathic treatment (call announced 20-02-07). This information will allow osteopaths to fulfil the mandatory requirement of obtaining informed consent prior to examination and treatment<sup>5</sup>. The areas of current investigation include:

- ◆ Adverse events associated with physical interventions in osteopathy and relevant manual therapies.
- ◆ Communicating risk and obtaining consent in osteopathic practice
- ◆ Insurance claim trends and patient complaints to the profession's regulator
- ◆ Investigating osteopaths' attitudes to managing and assessing risk in clinical settings and patients' experiences and responses to osteopathic treatment.

Patient safety remains of paramount importance to practising osteopaths.

Professor Ann Moore, Chair of the National Council for Osteopathic Research and members of the National Council for Osteopathic Research

#### References:

1. Ernst E. Adverse effects of spinal manipulation: a systematic review. *Journal of the Royal Society of Medicine*. 2007;100(7):330-338.
2. Licciardone JC, Brimhall AK, King LN. Osteopathic manipulative treatment for low back pain: a systematic review and meta-analysis of randomised controlled trials. *BMC Musculoskeletal disorders*. 2005;6:43.
3. Bronfort G, Nilsson N, Haas M et al. Non-invasive physical treatments for chronic recurrent headache. *Cochrane Database of Systematic Reviews*. 2004;(3):CD001878.
4. Gibbons P, Tehan P. HVLA thrust techniques: what are the risks? *International Journal of Osteopathic Medicine*. 2006;9(1):4-12.

5. General Osteopathic Council "*Fitness to Practise Guidelines*". May, 2005. London.



## **Call for Proposals**

*(Advertised on the NCOR website on Tuesday 20<sup>th</sup> February, 2007.*

*Additional advertisements will be placed with RDInfo, CHAIN, Osteopathy Today and  
The Osteopath)*

*(Timeline amended 26-05-07)*

The National Council for Osteopathic Research (NCOR) is announcing a call for proposals looking at four areas of interest. The funding for the potential projects has been provided by the General Osteopathic Council. The project areas are:

**Proposal 1: Adverse events associated with physical interventions in osteopathy and relevant manual therapies.**

Duration of project: 1 year

Total budget available: £37500

**Proposal 2: Communicating risk and obtaining consent in osteopathic practice**

Duration of project: 6 months

Total budget available: £7000

**Proposal 3: Insurance claim trends and patient complaints to the profession's regulator**

Duration of project: 1 year

Total budget available: £18400

**Project 4: Investigating osteopaths' attitudes to managing and assessing risk in clinical settings and patients' experiences and responses to osteopathic treatment.**

Duration of project: 2 years

Total budget available: £140000

### **The timeline for the proposals is:**

Tuesday 20<sup>th</sup> February, 2007: Announcement of call for proposals

Tuesday 1<sup>st</sup> May: Closing date for outline proposals

Tuesday 8<sup>th</sup> May to Tuesday 22<sup>nd</sup> May: Review of outline proposals

Tuesday 29<sup>th</sup> May: Full proposals invited

Monday 20<sup>th</sup> August: Closing date for full proposals

: Review of full proposals begins

Tuesday 11<sup>th</sup> September: Interviews for short listed applicants

Tuesday 18<sup>th</sup> September: Decision communicated to applicants

### **Further information**

Introduction to call for proposals

Information concerning the call for outline proposals

General information for applicants

Outline application form

Curriculum vitae form for outline applications

Guidance for completion of proposal form

Criteria for review of proposals by NCOR Research Grants Governance Committee  
Constitution of NCOR Research Grants Governance Committee  
Terms of Reference of NCOR Research Grants Governance Committee  
Full proposal application form  
Curriculum vitae for full proposals  
NCOR research Grants Governance Committee scoring system  
External referees scoring system  
Terms and conditions of grant award  
Progress monitoring

Further information can be found on the NCOR website at [www.ncor.org.uk](http://www.ncor.org.uk) under Research Opportunities or by contacting the NCOR research officer [c.a.fawkes@brighton.ac.uk](mailto:c.a.fawkes@brighton.ac.uk) or telephone 01273 643457.