

Institution: The University College of Osteopathy		
Unit of Assessment: A3 Allied Healthcare Professionals		
Title of case study: Improving osteopaths' awareness of evidence-informed practice and patient management guidelines		
Period when the underpinning research was undertaken: 2013 to 2020		
Details of staff conducting the underpinning research from the submitting unit:		
Name(s):	Role(s) (e.g. job title):	Period(s) employed by submitting HEI:
Mr Steven Vogel	Deputy Vice-Chancellor (Research)	18/09/1989 to present
Dr Oliver Thomson	Head of Postgraduate Studies	21/11/2012 to present
Dr Dawn Carnes	Professorial Research Fellow	05/03/2019 to present
Period when the claimed impact occurred: 2014 to 2020		
Is this case study continued from a case study submitted in 2014? N		
1. Summary of the impact (indicative maximum 100 words) Osteopathy has historically been underpinned by a limited evidence base, but UCO research studies have had a cumulative impact on improving professional knowledge and changing the culture of practice. Empirical knowledge has been generated - about treatment risks and adverse events to improve safety in clinical practice; to improve osteopaths' awareness of, and attitudes to, using evidence-informed practice; and to develop guidelines to support best practice for common musculoskeletal conditions. A portfolio of outputs influenced changes in the General Osteopathic Council's (GOsC) standards of practice and continuing professional development (CPD) regulations for the specified activities required for annual registration.		
2. Underpinning research (indicative maximum 500 words) To explore safety issues in osteopathic practice, SV led the Clinical Risk in Osteopathy and Management study (CROaM) (1. Vogel et al, 2013), funded by the GOsC to gather data on adverse effects. The survey included 1,082 UK osteopaths (27.8%) and 2,057 patients (77% at 6-week follow-up), plus interviews with 19 patients and 24 practitioners. Temporary side-effects were reported by 4% of patients, but not directly linked to manipulation. Concerning deficits in osteopaths' communication and consent processes were identified. The report concluded that serious problems were rare, but osteopaths should be vigilant about risk. Enhanced guidance about consent and adverse event reporting were recommended. Following this, OT co-authored a GOsC-funded report to identify how regulatory activities could support practice and align with professional standards (2. McGivern et al 2015). Literature reviews explored scope of practice, health professional regulation and fitness to practise, with an online survey of 809 osteopaths (17%) and 55 interviews. Limited evidence about treatment risks and benefits were reported as sources of professional insecurity and ambivalence about evidence-based practice (EBP). Diverse approaches made standard-based regulation complex, especially with independent practitioners. The report recommended introducing peer discussions into osteopathic regulation processes.		

Subsequently, **OT** collaborated in a survey of osteopaths' attitudes to EBP; the Evidence-Based Practice Attitude and Utilisation Survey (EBASE) (**3. Sundberg et al 2017**). Generally positive attitudes and moderate-level skills, but infrequent use of EBP were reported by 375 osteopaths. Perceived barriers included lack of time and limited osteopathic evidence, indicating the need to improve osteopaths' use of EBP in clinical practice. To promote to EBP, **SV** participated in a guideline development group; NICE guidelines for low back pain and sciatica in over 16s (**4. NICE 2016**). New recommendations that manual therapy should only be offered in packages incorporating exercises or psychological interventions highlighted an urgent need to change monomodal, biomechanical treatment models, prompting research into biopsychosocial approaches (Case Study 2). **SV** also collaborated in developing the IFOMPT Cervical Framework Document (**5. Rushton et al 2020**), providing guidance for physical therapists to minimise risks in the clinical management of patients with head and neck pain. Arterial pathologies in the neck may masquerade as musculoskeletal dysfunction and lead to serious consequences if not identified. New guidance about avoiding provocative positional testing were based on its' low predictive ability and potential adverse test effects. Recommended changes in history taking, examination and decision-making were used to strengthen training and CPD.

Paediatric osteopathy is also limited by lack of evidence on treatment effects. **DC** led a systematic review into manual therapy effects for unsettled, distressed and excessively crying infants (**6. Carnes et al 2017**). Nineteen studies (seven RCTs) found moderate strength evidence for favourable effects on crying time but inconclusive results for sleep and parent-child relations. Risks were low at seven non-serious events per 1000 infants. It was unclear whether the small effect sizes were meaningful, but manual therapy was relatively safe. Findings led to development of a randomised controlled trial in paediatric osteopathy.

3. References to the research (indicative maximum of six references)

1. **Vogel S**, Mars T, Keeping S, Barton N, Marlin R, Froud R, Eldridge S, Underwood M, Pincus T (2013). Clinical Risk in Osteopathy and Management Scientific Report: The CROaM study. London: General Osteopathic Council. Accessed on 13/04/21 at: <https://www.osteopathy.org.uk/news-and-resources/document-library/research-and-surveys/the-croam-study-february-2013/croam-full-report-0313.pdf>
2. McGivern G, Fischer M, Palaima T, Spendlove Z, **Thomson O**, Waring J (2015). Exploring and explaining the dynamics of osteopathic regulation, professionalism and compliance with standards in practice. London: General Osteopathic Council. Accessed on 13/04/21 at <https://www.osteopathy.org.uk/news-and-resources/research-surveys/gosc-research/research-to-promote-effective-regulation/>
3. Sundberg, T., Leach, M.J., **Thomson, O.P.**, Austin, P., Fryer, G. and Adams, J., (2018). Attitudes, skills and use of evidence-based practice among UK osteopaths: a national cross-sectional survey. *BMC Musculoskeletal Disorders*, 19(1):1-10. <https://doi.org/10.1186/s12891-018-2354-6>
4. NICE (2016). Low back pain and sciatica in over 16s: assessment and management (NG59) London: National Institute for Health Care and Excellence. Accessed at <https://www.nice.org.uk/guidance/ng59>
5. Rushton A, Carlesso LC, Flynn T, Hing WA, Kerry R, Rubinstein SM, **Vogel S** (2020). International Framework for Examination of the Cervical Region for potential of vascular pathologies of the neck prior to Orthopaedic Manual Therapy (OMT) Intervention: International IFOMPT Cervical Framework. Accessed on 13/04/21 at <https://www.ifompt.org/site/ifompt/IFOMPT%20Cervical%20Framework%20final%20September%202020.pdf>

6. **Carnes D**, Plunkett A, Ellwood J, Miles C. (2018). Effectiveness of manual therapy for distressed, unsettled and excessively crying infants: a systematic review and meta-analyses. *BMJ Open*: 8(1). <https://bmjopen.bmj.com/content/8/1/e019040>

4. Details of the impact (indicative maximum 750 words)

Research into the risks of adverse events, especially in cervical spine assessment and manipulation, and into communication and informed consent led to substantive changes in the General Osteopathic Council's (GOsC) regulatory policies. The cumulative impact of [UCO research on adverse events](#) is documented in committee reports about changes to the Osteopathic Practice Standards (OPS), Guidelines for Osteopathic Pre-Registration Osteopathic Education (GOPRE) and Continuing Professional Development (CPD) scheme.

The Clinical Risk in Osteopathy and Management study (CROaM) identified deficits in communication about consent ([Vogel et al 2013](#)). A report on professional regulation and compliance with standards identified challenges in monitoring osteopaths with diverse clinical practices ([McGivern et al 2015](#)). [Rushton et al's](#) (2020) IFOMPT report outlined risks relating to cervical spine treatment. This data has been incorporated into changes in GOsC expectations about standards of practice for qualified osteopaths (**Source 1, [GOsC 2018](#)**) and levels of competence in undergraduate student education (**Source 2, [GOsC 2020](#)**). Regulatory changes also include requirements for osteopaths to engage in case-based peer discussions as part of three-year CPD cycles, recommended by McGivern et al (2015) to promote engagement with standards in confidential, formative activities to highlight weaknesses and reduce misconduct, whilst acknowledging diverse attitudes and approaches. Osteopaths must now also participate in formal 'Communication and Consent' CPD activities (**Source 3, [GOsC 2021](#)**).

The study of clinical risks (Vogel et al 2013) led to a collaborative review of assessment methods for serious cervical spine dysfunctions (**Source 4 [Vaughan et al 2016](#)**). Findings have been used to enhance osteopaths' communication, consent and clinical reasoning skills in popular, ongoing [CPD courses](#). [Communication and consent](#) ran 10 times between 2014 and 2020 with 274 osteopaths (**Source 5a**). Findings from CROaM also generated CPD courses about the risks specific to [cervical spine assessment and consent](#) (**Source 5b**), which ran 9 times between 2017 and 2020 with 258 osteopaths and other health practitioners. IFOMPT recommended changes to decision-making processes for cervical spine manipulation (Rushton et al 2020) and recommended that practitioners should now avoid provocative testing. Guidance was integrated into courses covering shared decision-making, informed consent, medico-legal frameworks, and safety issues for practitioners who teach cervical spine manipulation techniques.

The GOsC commissioned a follow-up study to McGivern et al (2015), which recently reported that attitudes to EBP within the profession have changed in response to guidance from research-active OEIs (**Source 6 [McGivern et al 2020](#)**). UCO contributions to this sea change include SV's involvement in NICE (2016) guideline development, which increased national awareness of EBP for back pain and supported his subsequent contribution to the [National Back Pain Pathway](#), which guided EB implementation by national CCGs. In the UCO, changes in clinical training since 2017 require students to identify use of guidelines in their documented patient assessment and management plans. Recent qualitative research reported increased awareness and positive attitudes, but continued lack of confidence in using EBP (**Source 7 [Inman and Thomson 2019](#)**), indicating a need for further skills training (Case Study 2). The UK survey of attitudes to EBP ([Sundberg et al 2018](#)) was replicated in Australia (**Source 8 [Leach et al 2019](#)**), and subsequently in Sweden, Spain and Italy, which raised osteopaths' awareness internationally. Similar findings in several countries has prompted research into barriers to EBP

implementation, with future impact anticipated from a recently published systematic review protocol ([Sampath et al 2020](#)).

In the UK, osteopaths deliver paediatric care for approximately 1 in every 9-11 children, but there is limited evidence about manual therapy effects on infants and parents and carers. Many infants treated by osteopaths have symptoms of colic including excessive crying, unsettled, distressed or difficult to console, but evidence of effect is limited (Carnes et al 2018). A recent systematic review indicated favourable but weak evidence for crying time (**Source 9** [Ellwood et al 2020](#)), highlighting an urgent need for new research. This led to the development of CUTIES, the Crying Unsettled and disTressed Infants Effectiveness Study of osteopathic care (**Source 10** [Carnes et al 2020](#)). This two-arm, multi-centre, pragmatic randomised controlled trial is recruiting 112 infants, randomised to receive best practice advice and support plus either specific or non-specific (control) light touch manual therapy. Parents are blinded to group and outcomes include crying time over 14 days, parent satisfaction, adverse events and cost. Results anticipated in 2022 will generate evidence about treatment effect and provide the Advertising Standards Authority with data to assess the validity of advertising osteopathy for this common, distressing paediatric condition.

5. Sources to corroborate the impact (indicative maximum of 10 references)

Source 1 GOsC Policy Advisory and Education Committee (PAEC) Report, June 2018. <https://www.osteopathy.org.uk/news-and-resources/document-library/about-the-gosc/pac-june-2018-osteopathic-practice-standards-implementation/>

Source 2 GOsC Policy and Education Committee (PEC) Report, October 2020. <https://www.osteopathy.org.uk/news-and-resources/document-library/about-the-gosc/pec-october-2020-item-3-review-of-guidance-for-pre-registration/>

Source 3 GOsC Communication, Consent & Peer Discussion CPD requirements. <https://cpd.osteopathy.org.uk/themes/communication-and-consent/>

Source 4 Vaughan B, Moran R, Tehan P, Fryer G, Holmes M, **Vogel S**, Taylor A (2016). Manual therapy and cervical artery dysfunction: Identification of potential risk factors in clinical encounters. *International Journal of Osteopathic Medicine* 21, 40-50. <http://dx.doi.org/10.1016/j.ijosm.2016.01.007>

Source 5 UCO CPD courses

5a Communication & Consent CPD course
<https://cpd.uco.ac.uk/communication-and-consent-14-may-2021>

5b Cervical Artery Dysfunction CPD courses
<https://cpd.uco.ac.uk/cervical-spine-risk-assessment-and-consent-for-manual-therapists-30-january-2021>

Source 6 GOsC Policy and Education Committee (PEC), October 2020. <https://www.osteopathy.org.uk/news-and-resources/document-library/about-the-gosc/pec-october-2020-item-9-mcgivern-research/>

Source 7 Inman J, **Thomson OP** (2019). Complementing or conflicting? A qualitative study of osteopaths' perceptions of NICE low back pain and sciatica guidelines in the UK. *International Journal of Osteopathic Medicine* 31, 7-14. <https://doi.org/10.1016/j.ijosm.2019.01.001>

Source 8 Leach MJ, Sundberg T, Fryer G, Austin P, **Thomson OP**, Adams J (2019). An investigation of Australian osteopaths' attitudes, skills and utilisation of evidence-based practice: a national cross-sectional survey. *BMC Health Services Research* 19(1), 1-12. <https://doi.org/10.1186/s12913-019-4329-1>

Source 9 Ellwood J, **Draper-Rodi J**, **Carnes D**. (2020). Comparison of common interventions for the treatment of infantile colic: a systematic review of reviews and guidelines. *BMJ Open* 10: e035405. <https://doi:10.1136/bmjopen-2019-035405>

Source 10 **Carnes D**, Bright P, Brownhill K, Grace S, **Vogel S**, Vaucher P (2020). Crying Unsettled and disTressed Infants Effectiveness Study of osteopathic care (CUTIES trial): Pragmatic randomised superiority trial protocol. *International Journal of Osteopathic Medicine* 38, 31-38. <https://doi.org/10.1016/j.ijosm.2020.08.001>