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Differences in practice among osteopaths in the UK with more than or less than 10 years of experience: a cross-sectional study

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ABSTRACT

Objectives To explore possible factors related to the increased likelihood of retirement from practice and increased number of complaints and concerns received by osteopaths in practice 10 years or more.

Design Online cross-sectional survey.

Setting UK osteopathic healthcare.

Participants UK-based osteopaths registered with the General Osteopathic Council.

Results 570 questionnaires were eligible for analysis. Respondents were mostly women (57.5%), working in England (90.7%), white or white British (91.8%), 50–59 years of age (29.6%) and practicing for 0–5 years (16.9%). Osteopaths who had been in practice for 10 years or more were significantly (χ^2 tests, $p<0.05$) more likely to be a principal (81.1% vs 49.2%), aged 50–59 years (37% vs 14.3%) have a bachelor's degree (64.3% vs 31.2%), work alone (23.9% vs 11.6%), in fewer than three clinics (84% vs 69.3%), use paper patient records (47.5% vs 28.3%), see fewer than five new patients a week (59.8% vs 40.2%) and use cranial osteopathy on a daily basis (37.3% vs 18.5%).

Conclusions Osteopaths who have been in practice for 10 years or more have some significantly different demographics and aspects of clinical practice and patient management to those in practice less than 10 years. However, it is not clear whether these differences are influential in decisions for leaving practice or the increased number of concerns and issues received.

STRENGTHS AND LIMITATIONS OF THIS STUDY

⇒ This study used a comprehensive questionnaire that captured data concerning osteopaths' demographics, clinical practice arrangements and patient management approaches.
⇒ This study used varied recruitment strategies to obtain responses from a geographically and demographically diverse range of osteopaths in the UK.
⇒ It is possible that osteopaths with an interest in research were more likely to complete the survey, which may have biased the results.

INTRODUCTION

There are 5103 osteopaths practising in the UK as of August 2024,[1] primarily working in private practice and predominantly seeing patients presenting with musculoskeletal (MSK) conditions.[2] They use a variety of manual therapy techniques, exercise prescription, advice and a range of adjunctive therapies, such as dry needling.[2] Patient satisfaction is reported as high,[3] its effectiveness for common MSK conditions is favourable to comparators and related adverse events are short lived and mild or moderate in intensity.[4] By law, osteopaths must be registered with the General Osteopathic Council (GOsC), the regulator of UK osteopaths, to be able to practice. Registration requires a recognised qualification,[5] meeting ongoing mandatory continuing professional development (CPD) requirements and holding professional indemnity insurance.[1] Osteopathy is 1 of 14 registerable titles for allied health profession status in England.[6]

Osteopathy, in common with all healthcare professions, is committed to building an evidence base to support its approach. In relation to this, The National Council for Osteopathic Research (NCOR) was established in 2003, attained charity status in 2014 and is funded by donations from its stakeholders drawn from representatives of education, regulation and the osteopathic professional association. Its purpose is, 'to provide leadership and unity in osteopathic research development'. It aims to achieve this by providing 'strategic leadership and collaboration, engagement and education, communication, development and sustainability'.[7] Engaging clinicians in research is vital to the implementation of evidence into practice. One method to enhance engagement is through the creation of Practice-Based Research Networks (PBRNs). The NCOR Research Network (NCOR-RN) is the first PBRN for osteopathy in the UK and was launched by NCOR in 2024 following consultation with

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the profession.[8] Other osteopathic PBRNs exist around the world, including Australia,[9] New Zealand[10] and the USA.[11] PBRNs are also used extensively in other healthcare professions, such as medicine, dentistry and nursing.[12] PBRNs enable the integration of clinical practice with research[13] by combining the activity of clinicians in practice with academic researchers via a host institution.[14] This facilitates clinicians in day-to-day practice to contribute to national research agenda, quality improvement[14 15] and to contribute data on practice-relevant topics.[16] Consequently, the creation of NCOR-RN was a suitable approach to enable NCOR to achieve its aims.

In 2023, the GOsC commissioned the Centre for Enterprise and Economic Development at Middlesex University to conduct a modelling report on data from the register of osteopaths between 2008 and 2023. The purpose is to better understand key trends in osteopaths joining and leaving the profession and predicting what the osteopathic profession might look like in 3–5 years' time. The report identified that there was a negative trend in student enrolment on osteopathy courses and more osteopaths were leaving the register in 2022–2023 than joining. This is in contrast to an overall increase in students studying subjects allied to medicine according to Higher Education Student Statistics.[17] The report identified that osteopaths who had been in practice for 10 years or more were more likely to step back from clinical practice.[18] There are various areas of information needed to continue to future-proof the profession. This includes professional demographics, patient demographics, delivery of clinical care and outcomes of care including reports about care.

Information collected from other data sources identify key learning in relation to the numbers of years in practice. One area of learning is in relation to concerns and issues raised about osteopaths. To promote reflective practice, NCOR started to collate data in 2013 to look at data submitted to the regulator and profession's insurers. In the most recent report of the collated data for 2022, 126 concerns and issues were reported, the second lowest number on record. Analysis of the data showed that osteopaths who had been qualified for more than 10 years had an increased number of issues raised about them (n=63, 61%), compared with those qualified less than 10 years (n=37, 35%),[19] a finding consistent with the report from the previous year.[20] The most common issues were related to 'treatment causing new or increased pain' and 'sexual impropriety'.[19]

Currently, there is a lack of data from osteopathic practice to identify risk factors for receiving a report or predictors for leaving the register. Research conducted with medical doctors suggests that men, aged 35–65, practicing in urban areas[21] may be more likely to receive a report. For general practitioners (GPs), increased seniority and number of consultations per day were also associated with the odds of receiving a report.[22] However, more recent research summarised that the prediction of problems is a complex issue, that is, influenced by multiple factors that are context specific, rather than universally applicable to all practitioners.[23] With regard to early retirement from medical practice, burnout levels, presenteeism, work-related sleep problems, psychological distress and mental and physical work ability were found to be the main influences.[24 25] However, many of these issues related to systemic problems inherent with working in the National Health Service (NHS) and may not be applicable to osteopathic practice. A survey of Australian osteopaths who had left the register identified the main reasons as being family commitments, dissatisfaction with osteopathic practice and boredom with osteopathic practice.[26] However, risk factors for UK osteopaths receiving issues and leaving the profession have yet to be explored.

The objective of this study was to explore the differences in clinical practice of osteopaths who have been in practice 10 years or more, to identify possible factors related to their increased likelihood of retirement from practice and increased number of issues and concerns received.[18 19]

METHODS

Study design

To enrol osteopaths into NCOR-RN, a registration survey was conducted to collect data about the clinical environments, patient demographics and clinician demographics of osteopaths who wished to join, the results of which are reported elsewhere.[27] A cross-sectional survey method was used, with osteopaths being invited to complete an online questionnaire hosted by SmartSurvey,[28] by clicking on a hyperlink provided in several ways as described below. An incentive of being entered into a prize draw to win one of five £100 Amazon vouchers was offered. The survey contained 37 questions in four sections and was open for a period of 3 months.

Osteopaths who had provided their email address to NCOR following a period of consultation and promotion about the creation of a PBRN for osteopathy in the UK were emailed to complete the survey. The consultation and promotion activities included:

Online presentations provided to regional osteopathic CPD groups.

An NCOR exhibition stand at an osteopathy convention.

An article in the magazine of the Institute of Osteopathy (iO), the professional association for osteopaths in the UK.

A focus group study investigating barriers and facilitators to setting up a PBRN for osteopathy in the UK where participants were asked if they consented to be contacted in the future about the PBRN.[8]

Dissemination of the results of the study investigating barriers and facilitators to setting up a PBRN via a conference presentation and journal submission.[8]

A presentation on a commercial osteopathic CPD provider's online platform.

Osteopaths who had previously 'opted in' to be contacted about taking part in research studies as part

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of their professional registration process with the GOsC were sent an email inviting them to join NCOR-RN.

A hyperlink to the registration survey was included in NCOR social media posts (Instagram, LinkedIn, X-formerly Twitter and Facebook).

Email invitation to members of NCOR's Research Hubs: meetings facilitated by NCOR that bring together osteopaths to discuss research relevant to clinical practice.

Email invitations to research leads and principals of all Osteopathic Education Institutions in the UK, requesting that they be forwarded on to staff members.

Email invitations to the leaders of regional osteopathic CPD groups, to forward on to their members.

Email invitations to the leaders of NCOR stakeholder groups with requests that they be forwarded on to their members.

Inclusion of the survey invitation in the monthly electronic newsletter of the iO and GOsC.

Patient and public involvement

Patients and members of the public were not involved in the design of this study as the purpose was to collect and analyse demographic data from osteopaths.

Data collection

On reaching the survey website, the participant information sheet (PIS) (online supplemental appendix 1) was presented prior to any information being requested. In order to progress to the survey, the osteopath was required to select a check box to confirm that they had read the PIS and consented to take part in the survey. This approach is in concordance with guidelines on electronically consenting participants.[29 30]

Questionnaire

The NCOR-RN survey (online supplemental appendix 2) was developed using previous PBRN surveys of osteopaths in different countries,[10 31] and a national UK survey of osteopaths[2] for reference. The NCOR-RN survey consisted of four sections. An introductory section that contained qualifying questions to ensure participants were eligible to take part in the survey and non-eligible individuals were identified as quickly as possible. It also identified whether the osteopath had a clinical role to determine which of the following sections they should answer. Section 1: 'About your clinical work', contained questions relating to the nature of the osteopath's clinical work. For example, the geographical location of the clinics they work in and the number of patients that they typically see per week. Section 2: 'About your patients' contained questions about the type of patients the osteopath typically sees and how they are managed. For example, what are the symptoms their patients commonly present with and what subgroups of patients do they commonly see? Section 3: 'About you', contained demographic questions about the participant. For example, length of time in practice and professional qualifications. In total, there were 37 questions. All questions required an answer using a checkbox response to continue the questionnaire; this approach avoided missing data or data entry errors. Multiple participation was avoided by participants being required to enter their names and email addresses, with the intention that any duplicates would be removed. Similarly, a security step was added to the start of the survey to prevent bots (Bot: an automated software application programmed to complete tasks, such as survey completion, without human input.) completing it.

Piloting

The initial iteration of the survey was reviewed by the research team and an external researcher with experience in survey design. A printed version of the survey was then tested with three UK osteopaths external to the research team to identify any issues with readability or comprehensibility. Following feedback from this stage, an online version of the survey was created using SmartSurvey[28] and tested by the research team and a further three UK osteopaths to identify any issues with the functionality of the online version. Minor changes were made to the wording of one question to clarify its meaning, and response options were added to another question that were more relevant for osteopaths working in the NHS. Time for completion was estimated following the piloting of the online survey and included in the PIS (15 min) to help manage participants' expectations.

Participant sampling

Convenience sampling was used with participants self-selecting to take part. A functioning PBRN requires a minimum of 15 osteopaths completing the registration survey and joining NCOR-RN.[12] However, the aim was to recruit as many UK-based (including England, Scotland, Wales and Northern Ireland), GOsC registered osteopaths as possible. At the time of the survey, there were 5103 UK registered osteopaths who were potentially eligible to participate.

The following criteria were applied, as the purpose of NCOR-RN was to inform osteopathic practice in the UK specifically.

Inclusion criteria: UK osteopaths registered with GOsC.

Exclusion criteria: non-UK osteopaths or individuals not registered with GOsC.

Ethical considerations

Osteopaths eligible to take part in the study had 3 months to consider completing the survey and were able to contact the project coordinator if they required any further information. Participants were also advised that all their data would be anonymised before analysis or publication. All data were encrypted both in transmission and at rest and stored in secure UK-based data centres. Participants were able to exercise their data rights, such as erasure, restriction, rectification or portability should they choose.

Statistical analysis

Data were imported from SmartSurvey[28] into Microsoft Excel for analysis. Identifiable data such as IP and email

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addresses were recorded by SmartSurvey but not included in the data analysis. Frequencies and percentages were calculated for each question. The data were then split according to whether the osteopath had been in practice less than 10 years, or 10 years or more. X^2 analysis was used to determine whether there was a statistically significant correlation between the responses and whether the osteopath had been practicing less than 10 years, or 10 years or more. X^2 analysis was also used to determine the representativeness of the survey sample by comparing the demographic data with available data for osteopaths nationally. Following analysis, participants' personal data were separated from their survey responses so that they could continue to be contacted about participation with NCOR-RN activities (as described in the PIS and consenting process). Their anonymised survey response data will be securely stored indefinitely to allow for future analysis and data verification purposes.

RESULTS

A total of 631 questionnaires were completed. Of these, 24 osteopaths did not consent to their data being collected and stored and 37 were not registered with the GOsC and living or working in the UK. Consequently, 570 questionnaires were eligible for inclusion in the analysis. There were no missing data to impute. Due to the self-selecting nature of the participants, it was not possible to calculate response rates or reasons for non-participation, but the response rate for completers was 12% (of 5103 UK registered osteopaths), which is consistent with other studies involving osteopaths in research-related activities.[2 32]

The respondents were mostly women (57.5%), working in England (90.7%), followed by Scotland (6.5%), Wales (2.2%) and Northern Ireland (0.6%). White or white British was the most represented ethnicity (91.8%), and 50–59 years (29.6%), followed by 40–49 years (27.7%) were the most common age bands. These distributions were the same as the demographic data held by GOsC[1] (which includes all 5508 GOsC registered osteopaths, not just the 5103 UK-based ones). However, χ^2 analysis showed that there was a significant difference between the NCOR-RN and GOsC demographic data. For NCOR-RN survey respondents, the most common time period practicing as an osteopath was 0–5 years (16.9%). For the GOsC data, the most common time period in practice was 21–25 years (28.1%), followed by 0–5 years (25.5%). The data were not weighted or adjusted to account for the non-representativeness of the sample. Key statistically significant results are presented below corresponding to the three main categories of the questionnaire.

Clinical practice

Osteopaths in practice for less than 10 years were more likely to be associates (usually working on a self-employed basis in a clinic owned and operated by another osteopath (the principal)) or NHS employees, only having a clinical role seeing patients, working in two or more clinics, using digital record keeping systems, working with other healthcare practitioners (HCPs) and seeing more than five new patients a week, compared with osteopaths who had been in practice more than 10 years. Osteopaths who had been in practice for more than 10 years were more likely to be a principal, work in less than three clinics, use paper patient records, work alone (single-handed practice), see fewer than five new patients a week and describe cranial osteopathy[33] or paediatrics as a specialist interest, compared with osteopaths who had been in practice less than 10 years. Tables 1 and 2 present key statistically significant findings where there was an association between participants' responses to questions concerning clinical practice and whether they had been in practice less than 10 years or 10 years or more.

Table 1 Questions relating to clinical practice with a statistically significant relationship between responses and whether osteopaths have been qualified less than 10 years

Less than 10 years in practice, more likely to…	% for <10 years and (>10 years)	X^2	df	P value
Be an associate	59.6, (18.7)	95.65	1	<0.001
Be an NHS employee	5.3, (2.1)	4.2	1	0.04
Only have a clinical role seeing patients	47, (37.9)	4.03	1	0.04
Work in two or more clinics	66.8, (39.1)	42.17	6	<0.001
Use digital records	76.2, (52.5)	29.65	1	<0.001
Work with other HCPs	24.9, (13.6)	19.11	7	0.01
See more than five new patients a week	58.2, (38)	33.54	6	<0.001
Describe post-surgical rehabilitation as a specialist interest	10.6, (5.8)	4.28	1	0.04
Work with a physiotherapist	33.3, (23.4)	6.43	1	0.01
Regularly receive referrals from a chiropractor	9, (4.2)	5.33	1	0.02
Regularly receive referrals from an employer or occupational health department	9, (4.5)	4.63	1	0.03

NHS, National Health Service.

Patient management

Osteopaths in practice for less than 10 years were more likely to never treat toddlers (aged 1–3 years) or use cranial osteopathy, but more likely to discuss pain science[34] or use strain-counterstrain techniques[35] with their patients on a daily basis compared with osteopaths who had been in practice more than 10 years. Osteopaths who had been in practice for more than 10 years were

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Table 2 Questions relating to clinical practice with a statistically significant relationship between responses and whether osteopaths have been qualified 10 years or more

10 years or more in practice, more likely to…	% for >10 years and (<10 years)	X^2	df	P value
Be a practice principal	81.1, (49.2)	61.83	1	<0.001
Work in one or two clinics	84, (69.3)	42.17	6	<0.001
Use paper records	47.5, (28.3)	29.65	1	<0.001
Work with 0 other HCPs	23.9, (11.6)	19.11	7	0.01
See 0–4 new patients a week	59.8, (40.2)	33.54	6	<0.001
Describe cranial osteopathy as a specialist interest	25.5, (15.3)	7.51	1	0.01
Describe paediatrics (under 4) as a specialist interest	21.3, (11.1)	8.86	1	<0.001
Describe paediatrics (4–18 years) as a specialist interest	17.3, (9.5)	6.12	1	0.01
Regularly receive referrals from an acupuncturist	22.3, (14.3)	5.15	1	0.02
Regularly receive referrals from a GP	31.8, (21.7)	6.29	1	0.01
Regularly receive referrals from an osteopath	34.4, (25.4)	4.74	1	0.03
Regularly receive referrals from a counsellor or psychologist	12.1, (5.3)	6.56	1	0.01

GP, general practitioners; HCP, healthcare practitioner.

more likely to never use Kinesiotaping, dry needling or neurodynamics, but more likely to use cranial osteopathy with their patients on a daily basis compared with osteopaths who had been in practice less than 10 years. They also treated ankle pain, foot pain, sports injuries and pregnant women more frequently. Tables 3 and 4 present key statistically significant findings where there was an association between participants' responses to questions concerning patient management and whether they had been in practice less than 10 years or 10 years or more.

Osteopaths' demographics

Osteopaths in practice for less than 10 years were more likely to be aged 30–39 years, have an undergraduate master's degree, and be interested in, and feel they have the skills necessary to be involved in research related to osteopathic practice compared with osteopaths who had been in practice more than 10 years. Osteopaths who had been in practice for more than 10 years were more likely to be aged 50–59 years, have a bachelor's degree and be a member of a regional osteopathic CPD group, or the Sutherland Cranial College of Osteopathy (for osteopaths who have completed a minimum level of training in cranial osteopathy),[33] compared with osteopaths who had been in practice less than 10 years. Tables 5 and 6 present key statistically significant findings where there was an association between participants' responses to questions concerning osteopaths' demographics and whether they had been in practice less than 10 years or 10 years or more.

Questions with no significant differences

Whether osteopaths had been in practice for less than 10 years or 10 years or more had no association with: the area of the UK they saw patients; the number of hours per week they allocated to seeing patients; the number of follow-up patients they saw per week; what non-clinical roles they undertook; whether or not they had a specialist interest, and the type of training they had received relevant to it; the percentage of patients they saw with only MSK problems; or how frequently they referred patients to other HCPs, or for diagnostic imaging. Box 1 lists the topics for where there was no statistically significant association between participants' responses to questions and

Table 3 Questions relating to patient management with a statistically significant relationship between responses and whether osteopaths have been qualified less than 10 years

Less than 10 years in practice, more likely to…	% for <10 years and (>10 years)	X^2	df	P value
Treat ankle pain monthly	43.9, (34.6)	21.41	6	<0.001
Treat foot pain monthly	40.7, (31.5)	29.52	6	<0.001
Treat pregnant women quarterly	27.5, (24.9)	15.03	6	0.02
Never treat toddlers aged 1–3 years	56.1, (42.8)	15.86	6	0.01
Discuss pain science education with patients daily	42.9, (27.3)	18.09	6	0.01
Use strain-counterstrain or facilitated positional release daily	30.7, (19.7)	16.99	6	0.01
Never use cranial osteopathy	34.9, (22.6)	28.01	6	<0.001
Use neurodynamics or flossing weekly	40.7, (20.7)	84.26	6	<0.001

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Table 4 Questions relating to patient management with a statistically significant relationship between responses and whether osteopaths have been qualified 10 years or more

10 years or more in practice, more likely to…	% for >10 years and (<10 years)	X^2	df	P value
Treat ankle pain weekly	36.7, (27.5)	21.41	6	<0.001
Treat foot pain weekly	36.2, (21.7)	29.52	6	<0.001
Treat pregnant women monthly	35.2, (22.8)	15.03	6	0.02
Treat people with sport injuries weekly	45.4, (35.4)	24.66	6	<0.001
Never use Kinesiotaping	46.7, (29.1)	23.33	6	<0.001
Never use dry needling or acupuncture	59.6, (39.7)	35.62	6	<0.001
Use cranial osteopathy daily	37.3, (18.5)	28.01	6	<0.001
Never use neurodynamics	44.1, (10.6)	84.26	6	<0.001

whether they had been in practice less than 10 years or 10 years or more.

DISCUSSION

The objective of this study was to explore the differences in clinical practice of osteopaths who have been in practice 10 years or more, to identify possible factors related to their increased likelihood of retirement from practice and increased number of issues and concerns received.[18 19] The results showed that osteopaths who have been in practice for more than 10 years were significantly more likely to be a principal, aged 50–59 years, have a bachelor's degree, work alone, in less than three clinics, use paper patient records, see fewer than five new patients a week, use cranial osteopathy with their patients on a daily basis and describe paediatrics as a specialist interest, compared with osteopaths in practice for less than 10 years.

While this is the first study to compare the clinical practice of osteopaths who have been in practice for 10 years or more and less than 10 years, previous surveys have collected similar data from the profession as a whole, both nationally[2] and internationally.[36] The results of these studies share many findings with the survey of NCOR-RN members, namely that osteopaths work mainly in private practice, are aged 30–50 with 8 years or more experience, their patients present mostly with MSK problems, particularly low back pain, and soft-tissue and mobilisation are the most common treatment techniques.[2 36]

As osteopaths in practice for more than 10 years tend to work in fewer clinics and with fewer other HCPs, this may be more likely to create an environment of professional isolation with less opportunity to talk to colleagues or work with a mentor or peer. Such issues have been associated with an increased risk of burn-out: a motivating factor for retirement from practice.[25] However, osteopaths in practice longer than 10 years were also more likely to have a role other than seeing patients, suggesting a more diverse workload, which could increase their exposure

Table 5 Questions relating to osteopaths' demographics with a statistically significant relationship between responses and whether osteopaths have been qualified less than 10 years

Less than 10 years in practice, more likely to…	% for <10 years and (>10 years)	X^2	df	P value
Be aged 30–39 years	34.9, (5.8)	209.81	7	<0.001
Have an undergraduate master's degree	64, (7.9)	204.52	1	<0.001
Consider themselves to be an evidence-based/informed practitioner	96.3, (89)	11.71	4	0.02
Currently integrate research findings into their role as an HCP	84.7, (76.1)	11.08	4	0.03
Want to integrate research findings into their role as an HCP	86.2, (73.5)	28.35	4	<0.001
Be interested in being involved in research related to osteopathic practice	82.6, (63.8)	32.98	4	<0.001
Feel they have the research skills necessary to take an active role in research related to osteopathic practice	47.6, (28.1)	13.42	4	0.01
Feel they have the research experience necessary to take an active role in research related to osteopathic practice	38.6, (26.8)	15.99	4	<0.001
Have some spare time to devote to taking part in research related to osteopathic practice	60.8, (40.6)	26.94	4	<0.001

HCP, healthcare practitioner.

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Table 6 Questions relating to osteopaths' demographics with a statistically significant relationship between responses and whether osteopaths have been qualified less than 10 years, or 10 years or more

10 years or more in practice, more likely to…	% for >10 years and (<10 years)	X^2	df	P value
Be aged 50–59 years	37, (14.3)	209.81	7	<0.001
Have a bachelor's degree	64.3, (31.2)	55.57	1	<0.001
Belong to a regional osteopathic CPD group	36.7, (21.2)	14.20	1	<0.001
Belong to the Sutherland Cranial College of Osteopathy	17.6, (5.3)	16.34	1	<0.001

CPD, continuing professional development.

to different work practices and colleagues, thereby mitigating the effects of a more solitary clinical experience. They were also more likely to be involved with regional CPD groups, thereby increasing their interaction with other osteopaths. Further support for their successful integration with other HCPs is the finding that shows osteopaths in practice 10 years or more receive referrals more regularly from a wider variety of other HCPs, such as GPs, osteopaths and counsellors. However, this may simply be related to the amount of time they have had to establish such interprofessional relationships and their clinical competence.

More experienced osteopaths were also more likely to use cranial osteopathy on a daily basis and describe paediatrics as a specialist interest. This makes sense given that the approach is synonymous with the treatment of children in osteopathy.[33 37 38] The increased propensity for this approach and specialist interest may reflect the time needed to undertake such training and develop competence, or it may suggest a need for diversification in clinical practice over time to maintain interest in one's work and provide new challenges. Arguably, cranial osteopathy is one of the oldest and most established specialist interests within osteopathy,[33] so it would be reasonable to expect this to be a field osteopaths would explore who are interested in adding a new dimension to their clinical practice.

Osteopaths in practice 10 years or more were more likely to never use neurodynamic techniques and less likely to discuss pain science education on a daily basis with their patients compared with those in practice less than 10 years. There is compelling evidence to support the effectiveness of neurodynamic techniques,[39–41] and they align with the 'hands-on' nature of osteopathy. Similarly, pain science education is one of the more evidence-based approaches for helping patients with MSK pain.[42 43] Given the suitability of these approaches and the regularity with which they are used by osteopaths with less than 10 years' experience, it could be concluded that experienced osteopaths are less aware of these approaches and the potential benefits to their patients. This may suggest that more experienced osteopaths are not engaging with contemporary approaches to MSK pain management, or that they are choosing not to adopt them as readily as less experienced colleagues who are more likely to have been taught such approaches as part of their undergraduate training. This may be due to more experienced osteopaths not being taught the skills necessary to appraise and apply published research as part of their undergraduate training, as training has shifted from a diploma or bachelor's degree to an undergraduate master's degree over the last 25 years. This notion is supported by more experienced osteopaths less commonly describing themselves as being evidenced-informed or integrating research findings into practice. However, contrary to this, more experienced osteopaths were also more likely to describe never using Kinesiotaping or dry needling, neither of which feature in recent prominent guidelines for the management of MSK pain.[44 45] This may support the

Box 1 Questions with no statistically significant relationship between responses and whether osteopaths have been qualified less than 10 years, or 10 years or more

No difference between osteopaths in practice less than 10 years and 10 years or more and…

⇒ Gender (more osteopaths were women).
⇒ The area of the UK they see patients in (except the East Midlands).
⇒ The hours per week they allocated for seeing patients (most commonly 20–29 hours).
⇒ The number of follow-up patients they see per week (most commonly 20–29 patients per week).
⇒ Their non-clinical roles (except providing postgraduate training—more common for osteopaths in practice 10 years or more).
⇒ Whether they describe having an area of specialist interest or not (most respondents described having an area of specialist interest).
⇒ The type of training they have in their specialist interest (other than Post Graduate Certificate (PGCert—more common for osteopaths in practice less than 10 years) (experience with the patient type and completion of training courses were the most common additional training reported).
⇒ The languages spoken by their patients (except Urdu).
⇒ The percentage of patients they see with only a musculoskeletal problem (most commonly 75–99% of patients).
⇒ The frequency with which they refer patients to other healthcare practitioners (most commonly on a monthly basis).
⇒ The frequency and reason for referring a patient for diagnostic imaging (most commonly on a quarterly basis).
⇒ How do they prefer to receive training (face-to-face small group seminars or workshops with osteopaths and other healthcare professionals the most preferred method)?

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more judicial selection of adjunctive approaches, or simply a reluctance to vary their clinical approach at all.

Implications and recommendations

While this study establishes differences between the clinical practice of osteopaths who have been in practice 10 years or more and less than 10 years, it is not clear if these differences are influential in why the former group receive more concerns and issues or may be more likely to cease practice. For example, we do not have data concerning the health of osteopaths as they become older and the effect this has on their fitness to practice or ability to continue working. There was no significant difference in gender, or the number of follow-up patients seen per week, both of which have been identified as risk factors for problems received by doctors.[21 22] This survey did not collect data concerning stress, illness or burnout, aspects that have been linked to influencing retirement choices in other healthcare professionals.[24 25] Future research should establish the presence of these factors in osteopathic practice as possible reasons for early retirement. However, the simple fact that osteopaths in practice for 10 years or more are more likely to be aged 50–59 and therefore closer to retirement age, could be the main reason for ceasing practice, in addition to the higher death rates in this age group. This older age distribution could be further skewed by many individuals pursuing osteopathy as a second career and therefore starting practice later than someone who trains immediately after finishing their A-levels (educational qualifications usually obtained between ages 16 and 18 in the UK and the most common entry requirement for UK universities).

Participation in NCOR-RN will provide osteopaths with the opportunity to increase their skills in research appraisal and implementation. This could help to increase osteopaths' confidence in keeping up to date with newer innovations in MSK management through accessing information and being able to critique it, judging its strength and value to practice.

Further research should seek to obtain in detail, the reasons why individuals who have ceased to practice as an osteopath have chosen to do so. This could be performed using a qualitative approach, such as semi-structured interviews with osteopaths who have recently ceased to practice, to explore the reasons behind their decision and the context of their clinical practice.

Additionally, future issues and concerns reports could seek to establish any association between the nature of the issue and whether the osteopath has been in practice 10 years or more. This may help to identify specific skills gaps or practice methods associated with the findings of the current study that may increase the chances of receiving a problem.

Strengths and limitations

This study benefitted from data obtained from osteopaths in all regions of the UK, including osteopaths with a diverse range of ages, experience and clinical practice who responded to the NCOR-RN survey. The study identifies potential areas for future research that could eventually lead to the development of supportive or educational material, such as CPD courses, with the purpose of facilitating osteopaths to stay in practice longer or reduce the likelihood of them receiving a problem or concern.

Given the explicit research focus of NCOR and NCOR-RN, it is possible that osteopaths with an interest in research were more likely to complete the survey. However, this is somewhat in contrast to the finding that there was a greater representation of osteopaths competing in the survey with 10 years' or more experience compared with nationally, as this group were generally less likely to hold positive opinions about research compared with those in practice less than 10 years. Potentially, this group is demonstrating effective reflection on their practice and using NCOR-RN membership as a method for addressing their self-identified skills gaps in research. While there were statistically significant differences in the demographics of the NCOR-RN members compared with the UK profession generally, the distribution patterns for gender, ages and location were similar. However, caution should be exercised when generalising the results of this study, and future targeted recruitment to NCOR-RN for under-represented groups would be appropriate.

CONCLUSION

Osteopaths who have been in practice for 10 years or more have significantly different demographics and aspects of clinical practice and patient management to those in practice less than 10 years. However, it is not clear whether these differences are influential in the decision for leaving practice or the increased number of concerns and issues received. This work helps to inform the basis for a series of studies potentially strengthening the evidence to underpin good patient management but also supporting osteopaths as they develop as clinicians fostering a sense of professional cohesion and facilitating retention in the profession over the longer term.

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