Perceptions of preparedness of chiropractic graduates for practice

Final Report

November 2017
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The General Chiropractic Council (GCC) is the independent regulator for chiropractors in the UK. Established by the Chiropractors Act 1994, its primary purpose is to ensure the safety of patients and the general public.

Although set up by an Act of Parliament, the GCC remains independent of government and the profession that it regulates.

The GCC has three main duties which are:

1. protecting the public by regulating chiropractors
2. setting the standards of chiropractic education, conduct and practice
3. ensuring the development of the profession.

Its work, to underpin these duties, includes maintaining the standards of practice and conduct for the chiropractic profession, maintaining a register of qualified professionals, assuring the quality of chiropractic education and training and acting to restrict or remove from practice registrants who are not considered to be fit to practise.

It is illegal in the UK for anyone to describe themselves as a chiropractor, or to imply that they're a chiropractor if they are not GCC registered. As of the end of 2016 there were 3195 chiropractors registered with the GCC.

Chiropractic education in the UK is currently delivered by three educational institutions. These are:

i. The AECC University College
ii. The McTimoney College of Chiropractic (MCC)
iii. The Welsh Institute of Chiropractic, University of South Wales (WIOC)

Chiropractors without a UK chiropractic qualification can currently register with the GCC and practise in the UK either by holding EU community rights or by taking and passing the Test of Competence (ToC). The ToC is a stringent test that requires evidence of past practice and the applicant’s chiropractic qualifications all of which are reviewed by an expert panel of ToC assessors.

The GCC has a statutory role in recognising and monitoring chiropractic degree programmes. This means that current and new programmes on offer to students are assessed against the Degree Recognition Criteria / Education Standards. These were revised in 2017.

The award of a recognised qualification to a graduate of a degree programme means the holder is capable of practising, without supervision, to the standards expected in the GCC’s Code of Practice. These standards are embedded in the Education Standards and are intended to be at the core of the degree programme. Students are taught to follow the Code and must adhere to the principles within it and they must also be guided by the GCC’s student fitness to practise guidance.
An important requirement for all chiropractors is that once they are on the register they must complete annual continuing professional development (CPD) in order to meet the annual re-registration requirements.

The GCC’s interest in this research on preparedness for practice was primarily focused on the extent to which individuals who complete a recognised degree programme are perceived, and perceive themselves to be, prepared for practice and to meet the GCC Code and Standards.

As students of chiropractic undertake a significant part of their training in dedicated clinics at their education institutions, they are subject to the supervision of senior colleagues whilst they are seeing and treating patients.

However, once students complete that training and graduate - some may go into a group practice to retain such support during their first year of independent practise, but also experience shows that a number do not and as a result commence their practice as sole practitioners with no direct support.

Support for this transition phase for the newly qualified can occur in different ways. A number make use of the long-established post registration training programme (PRT) for chiropractors in their first year of practise. This is managed by the Royal College of Chiropractors (RCC) which has an extensive track record in running the programme. The PRT is further discussed in section 5 of this report in the context of transition and support.

The GCC programme of CPD, subject to a review in recent years, is focussed on better assuring the continuing fitness to practise of chiropractors and there is an on-going discussion by the GCC Council on whether the PRT scheme could, subject to legislative change, become mandatory for all newly registered chiropractors.

1.1 What is preparedness for practice?

Literature on the subject of ‘preparedness’ suggests that an important element of being ready for practice is the ability of an individual to recognise the responsibility that comes with being a registrant in a healthcare sector. In delivering patient care they should also be capable of judging their own limitations and working within them as well as recognising when to request support and advice.

On this same matter, a point, commonly expressed in student-centred research, is of the fear and worry about the “overnight” change in responsibility on graduation from the programme, as described in the work by Monrouxe et al. commissioned by the General Medical Council (GMC). Other issues surround the concept of preparedness. Firstly, there is the “fuzziness” inherent in the word

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1 The Class of ‘15 survey (General Chiropractic Council) shows 16% of new chiropractors work on their own, with 87% of new graduates working alongside other chiropractors. The 2016 survey of the profession carried out by the GCC shows that 31% of registrants work on their own.

2 Monrouxe et al. (2014), How Prepared are UK Medical Graduates for Practice? Crossley JGM, Vivekananda-Schmidt P, 2015, Student assistantships: bridging the gap between student and doctor.

3 Monrouxe et al. (2014), How Prepared are UK Medical Graduates for Practice?
“prepared”. The term seems to suggest a finite end to a training period and an unintended sense of absolute capability. The reality, of course, can be very different.

In some of the studies in and around this subject, it appears that there was no commonly used or single definition used for preparedness, in some cases other terms such as “readiness” were used. “Both a long- and short-term venture that included personal readiness as well as knowledge, skills and attitudes”, was a finding of Monrouxe et. al. (2014) as a result of the rapid review of literature on how preparedness to practise is conceptualised.

In their detailed research on this subject in 2012, the General Osteopathic Council (GOSc) noted that ‘preparedness to practise can never be fully complete at the end of an osteopathy degree (or any profession’s pre-qualification education). This is predominantly because practice is highly variable and constantly evolving and certain aspects of professional learning have to occur through engagement in workplace practices’.

The earlier-mentioned study by Monrouxe for the GMC stresses the interdependencies of confidence and competence. Self-confidence very often impacts on new graduates’ ability to develop their competence in areas such as being prepared to diagnose and manage care. However, as the GMC concludes - ‘confidence’ is not ‘competence’ and a lack of insight into limitations (including over-confidence) is equally undesirable. Monrouxe’s report for the GMC came to the conclusion, as a result of the extensive research and rapid review of the literature, that: “the concept of preparedness is not one-dimensional or a simplistic case of individuals being either prepared or not- it is a continual non-linear process”.

Fundamentally, there is a difference between preparing for immediate practice, and maintaining professional capability over many years in an ever-changing healthcare environment. The latter is about a commitment to continuing professional development and lifelong learning and this may in fact challenge the way in which the word “prepared” is used.

1.2 Different methodological designs

Much of the literature on the subject relates to the preparedness for practice of medical graduates in training to become junior doctors via a Foundation programme (post medical school), but also general research on this topic has been carried out by, for example, the General Osteopathic Council, General Dentistry Council, and by the HCPC. All have been instructive in their methodology and approach, partly informing this work on behalf of the GCC. These studies have used different

4 The GMC (2014), Be prepared, are new doctors safe to practise?
5 Freeth, D., McIntosh, P. & Carnes, D., (2012), New Graduates Preparedness to Practise, Queen Mary University of London
6 Monrouxe et al, (2014), How Prepared are UK Medical Graduates for Practice?
7 Honey J., Lynch, C.D., Burke, F.M., Gilmour, A.S., (2011), Ready for practice? A study of confidence levels of final year dental students at Cardiff University and University College Cork. European Journal of Dental Education; Professor Chambers, Dr Hickey, Borghini, McKeown (2016), Preparation for practice: The role of the HCPC’s standards of education and training in ensuring that newly qualified professionals are fit to practise. A study by Kingston University and St George’s University for the HCPC. And Freeth, D., McIntosh, P. & Carnes, D., (2012), New Graduates Preparedness to Practise, Queen Mary University of London
approaches, the design of which are chosen often due to factors including audience, length of time for the study and intended purpose and aims of the research.

A selection of approaches have been utilised across the literature (which is more fully described in Appendix 2):

| Longitudinal studies | Longitudinal studies are well used and documented and the GCC may ultimately consider implementing a study of preparedness by setting these initial findings in this report as a baseline and continuing a programme of research over a number of years to see if attitudes or perceptions change over time. The practice is very common in the medical profession with medical graduates and junior doctors. Longitudinal studies such as that from Goldacre, et. al. (2010) and Lambert, et.al. (2013) focussed on graduates’ views over a period of a decade. Comparing cohorts enables studies to show changes in perceptions of preparedness over time; issuing the survey at the same time for each cohort also ensures some consistency with the amount of exposure trainees would have had to the job. An alternative use of longitudinal studies is the possibility of conducting the research in two halves: for example pre and post a student assistantship (a postgraduate first year role). An evaluation of student assistantships, introduced into medical practice for this very purpose around 2011/2012, demonstrated not only the validity of having such a role, but the value in asking students and new graduates about their feelings of preparedness in specific areas. After the assistantship, students were asked to complete the questionnaire and comparison of the results showed statistically significant improvement in the students’ perception of their preparation for more than 87% of tasks. |
| Small scale, time-limited studies: Matheson & Matheson (2008) investigated the perceptions of consultants and specialist registrars from two teaching hospitals in Trent Deanery using questionnaires. These were sent out to all consultants and specialists registrars in the two biggest teaching hospitals 6 months after the trainees had begun. Data were analysed comparing consultant responses with specialist registrars. |

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10 Crossley JGM, Vivekananda-Schmidt P, 2015. Student assistantships: bridging the gap between student and doctor.
approach enabled to some extent the provision of more detail than that which could be gained from the longitudinal studies.

**International research & comparisons:**

Other preparedness research has used comparisons between different learning environments. Research in 2014, which compared schools of osteopathy in Britain, France and Italy, found statistically significant associations between the learning environment and levels of preparedness, suggesting simple measures such as small classes could play a beneficial role.

**Rapid review:**

A lot of research in the area of preparedness for practice have generalised topics and used the self-report method. Monrouxe et. al., (2014), reviewed 81 manuscripts from between 2009 and 2013, carried out 185 interviews with stakeholder groups including Foundation year one (F1) trainees, trainee doctors, employers, and educators. As well as this, audio-diaries were kept by 26 F1 trainees for 4 months. The data collected helped to understand how preparedness for practice is conceptualised, measured, and how prepared UK medical graduates are for practice.

### 1.3 Measurement methods for preparedness

The choice of measurement methods is often dependent on an assessment of factors such as time, costs, availability of the target audience, the existence of relevant research amongst others.

The online surveys created in the studies mentioned above utilised the common approach of using a mix of scales (rating or Likert) questions and open/closed questions. This was the approach for Goldacre (2013) which used postal surveys including rating questions on a five point scale from “strongly agree” to “strongly disagree” with statements such as “Experience at medical school prepared me well for the jobs I have undertaken so far”. As is common practice, additional free text boxes were included to add additional comments if participants wished.

The Lambert study of 2013 also used rating questions 1 – 10 covering how much the graduate enjoys their job and satisfaction with leisure time, allowing the respondent the opportunity to provide a much deeper level of granularity.

Similarly, the method used for the research commissioned by the General Osteopathic Council (GOsC) to explore the perceptions of preparedness to practise among newly registered osteopaths; colleagues and employers, final year students, and selected staff at Osteopathic Education Institutions, utilised questionnaires with rating scales and open text boxes.

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Five topics were examined in this study of osteopathy graduates’ preparedness to practise: clinical knowledge, interpersonal and communication skills, skills and competence, business and entrepreneurial skills and professionalism. These GOsC topics mirrored the GCC’s recently revised Code and the aims and objectives of the study are highly comparable, and as a result, therefore, were considered appropriate areas of examination for the GCC questionnaires for employers, newly qualified practitioners and final year students. The final version of these questionnaires are provided in Appendix 4.

1.4 Project Aims

The specific aims of the project commissioned by the GCC were twofold:

- Evaluate perceptions of the extent to which chiropractic graduates are prepared for practice,
- Evaluate views and perceptions of graduates’ transition into practice.

To meet those aims the study sought to gain and contrast views from:

- experienced chiropractors (employers and colleagues);
- newly qualified chiropractors (newly registered);
- final year students.

These views were supplemented by discussions with the Royal College of Chiropractors (RCC), the four professional associations and other key stakeholders such as the educators/providers. Additionally, views about the interaction between newly qualified practitioners and patients were discussed via employer in-depth interviews. Example comments have been provided to illustrate the themes under discussion. Employer views have been shaded blue, newly qualified practitioner views orange and students shaded light green to ease reading. The research then drew on those findings in order to develop recommendations for the GCC, education providers and the industry to consider.

1.5 Methodology and methodological considerations:

**Literature review to inform the methodological plan**

An initial plan for the methodology on collecting views from a diverse set of audiences was put before the GCC. This was discussed and refined, particularly in the light of other similar research (see Appendix 2) on the subject of preparedness in healthcare.

**Stakeholder Interviews**

These were invaluable when it came to structuring the questions for the surveys and for gaining understanding about the themes that may appear. The stakeholders included the education providers (with whom this planned research was discussed at a meeting convened at the start of the research), all of the Chiropractic professional bodies and the Royal College of Chiropractors.
Research Methods

An online survey was utilised as the main means of gaining responses. This was to enable the whole population of registrants to respond in an easy to use manner (own time and pace), and requires low resources and minimises burden on the participants.

As this research for the GCC in 2017 is a small scale, time-limited approach, the decision was taken to mirror other studies in the use of questionnaires (online for efficiency) and the same broad themes for questioning.

The table below lists the method and purpose in chronological ordering:

<table>
<thead>
<tr>
<th>Method</th>
<th>Timings</th>
<th>Purpose – coverage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Stakeholder and provider phone or face to face interviews</td>
<td>February/March 2017</td>
<td>Views were gathered on the research approach and on the subject of the research to understand the future changes/trends in chiropractic practice and education (e.g. regulatory, economic, legal etc.) that may impact on graduate preparedness.</td>
</tr>
<tr>
<td>2. Final year students – online survey</td>
<td>April 2017(^{13}) (6 weeks)</td>
<td>To identify their levels of confidence in continuing onto professional practice, levels of agreement on their sufficiency of knowledge and clinical skills, and expectations regarding learning from experience. Knowledge of and expectations around CPD and recognition of the ongoing need to improve one’s professional performance and their interpretations of a focus on patient safety.</td>
</tr>
<tr>
<td>3. Experienced Chiropractors – termed ‘Colleagues/Employers’ - online survey</td>
<td>April 2017 (4-6 weeks) + follow-up</td>
<td>The survey was aimed at those experienced chiropractors (defined as those having registered with the GCC on or before 2013) to ask their views on perceptions of preparedness and transition into practice of graduates. The questions covered clinical skills, knowledge and competence, interpersonal and communication skills, entrepreneurial and business skills, professionalism as well as supporting graduate transitions into practice. The survey is filterable by those who work in a practice with one or more newly qualified chiropractors.</td>
</tr>
</tbody>
</table>

\(^{13}\) Delayed from the original plan to avoid a clash with the National Students Survey.
4. Newly qualified practitioners – online survey

<table>
<thead>
<tr>
<th>June 2017 (4-6 weeks)</th>
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</table>

The survey is aimed at those who are newly qualified (which we defined as those who have been practicing as chiropractors for less than five years) to ask their views on their own readiness for work/preparedness for practice against the same themes as above. Questions sought their agreement on whether their degree provided sufficient knowledge, exposure to a variety of client groups and diverse clinical conditions, supervised clinical practice, preparations for moving into practice and support regarding transition into practice.

5. Employer follow-up interviews

<table>
<thead>
<tr>
<th>August-September 2017</th>
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</table>

Deeper insight into the preparedness of newly qualified practitioners, patient safety and the PRT scheme.

Respondent profiles are contained in Appendix 1 and the final questionnaires are in Appendix 4.

**Online Surveys**

The themes were very similar to those used for the work conducted by the General Osteopathic Council in 2012. The measurement scales for the GCC questionnaires matched theirs including using 1 to 10 for preparedness in clinical skills and knowledge to gain and gauge a high degree of specificity, and rating scales of 1 to 5 for levels of confidence in broader areas and a five point Likert scale (strongly agree, agree etc) on a range of statements about outcomes.

Three surveys were initiated and promotion happened in several ways.

An online survey link to the employers'/colleagues' survey was circulated by the GCC in two mailings, and the survey was promoted in the GCC April newsletter. It targeted experienced chiropractors (those having registered with the GCC on or before 2013) to ask their views on perceptions of preparedness and transition into practice of graduates. The questions covered clinical skills, knowledge and competence, interpersonal and communication skills, entrepreneurial and business skills, professionalism as well as supporting graduates’ transitions into practice. Additionally, interviews were undertaken with employers who were willing to provide further insight on their experience of working with new registrants.

The newly qualified chiropractors’ survey link was circulated by the GCC in a similar way to the employers'/colleagues’ survey with references to the survey on the website and in a newsletter. Various reminders were sent out to encourage participation. The survey targeted chiropractors who have been practising for less than 5 years. Again, the questions were similar to the employer survey identifying levels of preparedness and confidence in knowledge and clinical skills. The questions also covered what support the newly qualified chiropractors are aware of and what support they feel has been the most beneficial to their learning.
The final year students’ survey was circulated to students by each of the three chiropractic educational institutions, and reminders were sent; the survey was also promoted via social media. The questions were generally the same as the employers’/colleagues’ survey, and were designed to identify students’ levels of confidence in continuing onto professional practice, levels of agreement on their sufficiency of knowledge and clinical skills, and expectations regarding learning from experience.

Using SNAP software for the survey data, the results were analysed and are reported under five main themes of being prepared for practice (section 2.1); clinical skills and knowledge (2.2); degree programmes (2.3); confidence (2.4); business skills/entrepreneurship (2.5); transition and support (section 3). Applying the GCC’s Code of Conduct was also explored (see section 2.6). Open text questions were also analysed on a thematic basis; all responses are listed in an Annex.

Survey responses received in total:

<table>
<thead>
<tr>
<th>Target Audience</th>
<th>Responses received</th>
<th>Known/Est Population</th>
<th>Approx. response rate (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Employers/colleagues</td>
<td>140</td>
<td>2372</td>
<td>6</td>
</tr>
<tr>
<td>Newly qualified Chiropractors</td>
<td>60</td>
<td>823</td>
<td>7</td>
</tr>
<tr>
<td>Final year students</td>
<td>31</td>
<td>123</td>
<td>25</td>
</tr>
</tbody>
</table>

Interviews completed in total:

| Stakeholders and providers             | 10                 |
| Depth interviews – employers           | 20                 |
|                                      | Plus a provider workshop discussion |

14 The annual report (31.03.17) by the professional standards board refers to 3195 less the population of newly qualified practitioners
15 Based on annual data received by the GCC for 2013 to 2016 (see Annual Statistics Report, 2016) using an est. figure of 135 for 2012.
Notes on the methodology:

1. This has been a highly specialised survey in a relatively small population. The response rate for the three surveys has been very acceptable given the subject, difficulties in reaching these audiences and that relatively small numbers were eligible to take part. We consider that as they were views from involved and experienced people they carry a good deal of weight.

2. Employer responses: when conducting the analysis of the 140 employer responses, these were filtered by whether the respondent currently employs or works with a new registrant to identify any differences between the two respondent groups. Of those 140 employer responses, one third currently employ or work with a new registrant (33%), the remaining responses did not. Where there are notable differences these are highlighted in the text.

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16 For broad comparisons, the General Osteopathic Council study in 2012 received 127 responses from NQPs (a 24.5% response rate) and 61 responses from colleagues/employers (a 15.7% response rate). Students attended focus groups from 6 of their 8 institutions.
2 Preparedness for practice:

2.1 Overview of being prepared for practice and perceptions of what it involves.

Summary:

The three surveys to employers/colleagues, newly qualified practitioners and students asked each of their corresponding audiences what being prepared for practice involves. These views are summarised below:

✓ Employers: patient care and good communication skills, a mix of clinical skills and business skills and developing oneself including being able to learn from mistakes.

✓ Newly qualified practitioners: patient care/management, patient safety, confidence, communication, being able to diagnose, knowing when to treat/refer were all mentioned as important.

✓ Final year students: being safe and competent in practice, some mentioned having confidence and others referred to clinical practice and experience.

✓ Around 64% of employers feel new registrants are either very well or sufficiently well prepared for practice.

✓ Around 84% of newly qualified practitioners felt they were very well/well prepared for practice when they started in their first job as a new registrant.

2.1.1 Setting the context for preparedness for practice

Stakeholders participating in this research spoke of key themes that may present as common weaknesses which they predicted will often occur in survey feedback and interviews. Such themes are 1) the lack of business skills (particularly handling the commercial side of treatment), 2) communicating with patients, and 3) having confidence as well as the ability to apply a range of techniques.

The transition through the conscious competence learning model can take a good while depending on the complexity of the patient’s needs, and one stakeholder who discussed this topic felt that graduates need to be open to understanding what they don’t know.
Stakeholders were at pains to explain that the background and first experience for a newly qualified practitioner often shapes their subsequent progress and style of chiropractic. If a graduate finds themselves with an employer with a different mindset to themselves this can be very disconcerting and challenging. Students often come to the profession having had a chiropractic experience beforehand which piqued their interest, and that those who are more mature – coming to the profession as a second career choice - may well benefit as a result of a greater set of life experiences thus enhancing their confidence and communication skills more than for a young graduate.

‘Average age of patient is about 45 and average age of a grad is 22. Life experience is a problem but energy and enthusiasm makes up for it. The problem is the immaturity and lack of emotional intelligence of the NQP. This is an issue of character and discipline’.

2.1.2 Employer views on being prepared for practice

Overall, 64% of employer survey respondents feel new registrants are either sufficiently or very well prepared for practice. Compared with this figure from all employer respondents, those who currently employ a new registrant are slightly more positive; 72% suggest they are either sufficiently, or very well, prepared. However, this does mean that there are relatively strong perceptions by well over a third of employers that graduates are not prepared well enough.

Figure 1: Employer views on graduate preparedness for practice

Employers emphasised the need for new registrants to be safe. They said preparedness involves being confident and competent. Many acknowledged the fact that graduates do not have any real life experience and therefore need to recognise that they will make mistakes.
“They are safe and competent and only lack experience as does any new graduate in any profession (this is not a criticism).”

In recognising this potential risk that new entrants bring, employers who have had or currently employ new registrants were asked in interviews about the benefits of employing a newly qualified practitioner. Overwhelmingly the response was positive and endorsed the pipeline of new talent.

“Fresh knowledge, fresh research, enthusiasm and a willingness to learn. Cost effective practitioner”.

Three key themes emerged from the 80 responses to the question on what being prepared for practice involves:

- Patient care including good communication
- Business skills as well as clinical
- Actively developing oneself; visiting different chiropractors; asking for help; practice and; learning from mistakes.

There were no views that contrasted with the above or that prompted a fourth theme. The full list of responses is in the Annex.

Some examples of such comments around these three themes are provided below.

“Universties prepare students for clinical practice post-graduation”.

Another employer respondent agreed but expanded with

“New grads have good clinical skills but poor business skills and whilst (they) are prepared in their medical ability they lack business acumen”.

Other respondents echoed this:

“Academic knowledge and clinical skills are good and adequate, but the ability to sustain a practice requires vastly different knowledge that I do not believe a course should, could or would provide.”

“It is not enough to do well at academia. Having an awareness of the real world and patient management is crucial.”

“Full patient care, responsible for marketing, diagnosis, appropriate treatment and referral, when required.”

“To be competent and safe and to put patient's needs first rather than practice a "marketing based" model.”
2.1.3 Newly qualified practitioner views on being prepared for practice

Overall, 84% of the 60 respondents felt either sufficiently or very well prepared.

Figure 2: Newly qualified practitioner views on how well-prepared they felt when starting practising

Base: 60 newly qualified practitioners survey, 2017

Seven respondents put forward suggestions of what would have helped them reduce the feelings of not being prepared. Examples of these are listed below:

- More practice exposure - technique practise, exposure to more acute cases. Adjusting practice, more constructive environment in university / less fear based learning;
- Being free to discuss communicating Chiropractic and also allowed to observe other Chiropractors in all styles and settings without being reprimanded;
- Some education on what chiropractic actually is compared with physiotherapy techniques;
- Treatment programmes;
- Communication - how to talk to the patient, how to encourage the patient to take on the care and refer;
- Better training in diagnosis and application of appropriate evidence based treatment protocols.

When asked what they felt being ‘prepared for practice’ involves, 28 newly qualified practitioner responses state patient care/management is the main aspect. Within these responses, patient safety, confidence, communication, being able to diagnose, knowing when to treat/refer were all mentioned as important aspects.
Another eight newly qualified practitioner respondents feel it is important to have self-confidence. Six respondents mention knowledge. Of those six respondents, only a few elaborated on what they meant.

“Knowledge to know when to ask for help and where to go to get it”

“I think preparation is as good as it can be if you have reached the level of conscious incompetency: you need to know when to ask for help, be able to recognise your weaknesses (and strengths), and be able to access both knowledge and expertise.”

“you can never really be prepared when you first graduate. it takes time and experience. You will learn from mistakes as time goes on. You leave with good knowledge, but often it can be difficult to translate this knowledge well in working practice”

Only two respondents mention working to specific standards:

“Being able to confidently offer chiropractic care in a way that is safe, evidence based and congruent with both GCC regulations and Chiropractic philosophy.”

“Ability to practise safely, effectively, and confidently, within the relevant legislation and standards.”

Other aspects mentioned by newly qualified practitioners regarding what is involved with being prepared for practice are:

- Competence not to cause harm
- Being prepared to work as self-employed
- Understanding that clinic is different to university
- Business/marketing skills as well as clinical
- Deliver the basic service expected by assessment
- Working with others
- Taking over from an experienced chiropractor from day 1

2.1.4 Final year student views on being prepared for practice

Final year students were asked how well their degree programme will prepare them for chiropractic. The results of this are set out in section 2.3.4.

When final year students were asked what they think being prepared for practice involves, 25 responses showed a variety of themes including being safe and competent in practice (12), having confidence (6) and aspects of clinical practice and experience (7).

Some examples of those responses are given below.

“Being confident to deliver best practice to patients adhering to guidelines and regulations”

“Confident enough not to harm the patient, humble enough to know that we aren’t the finished
“Be able to practise safely and competently in the patient's best interests”

“Safe, knowing the limits of your knowledge, and knowing when to refer”

“Knowledge to act safely and be able to communicate well and provide high quality treatment”

“Exam, diagnosis, make treatment plans and making the patient stick to the treatment plan”

“Adjusting, diagnosis, communication”

“Being able to work with patients from day one from assessment through to diagnosis and treatment”
2.2 Overview of preparedness in clinical skills and knowledge

**Summary:**
This section explores respondents’ perceptions of competence when carrying out certain tasks. The same list of 14 clinical skills and knowledge were asked of employers, students and newly qualified practitioners. Respondents were asked to rate from 1 to 10 of their own (student, or newly qualified practitioner) or employees'/colleagues’ level of preparedness for practice.

There is a good deal of similarity between the skills rated highly (indicating a perception of being well-prepared) and those rated lowest (indicating a feeling of being least prepared) across the three audiences. The rating spread chosen is not large but gives some indications of preparedness in these skills and knowledge.

### 2.2.1 Comparisons between employers, newly qualified practitioners and students on clinical skills and knowledge

Table 1: Feelings of preparedness in clinical skills and knowledge

<table>
<thead>
<tr>
<th>Area of clinical skills and knowledge</th>
<th>Employer (n= 140)</th>
<th>NQP (n = 59)</th>
<th>Student (n = 30)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean</td>
<td>SD</td>
<td>Mean</td>
</tr>
<tr>
<td>How to obtain consent from a patient</td>
<td>8.1</td>
<td>1.6</td>
<td>9.3</td>
</tr>
<tr>
<td>Being able to assess a patient's capacity to make a decision</td>
<td>7.4</td>
<td>1.8</td>
<td>8.7</td>
</tr>
<tr>
<td>Taking a patient's history</td>
<td>8.0</td>
<td>1.9</td>
<td>8.6</td>
</tr>
<tr>
<td>How to maintain and protect patient information</td>
<td>7.7</td>
<td>1.9</td>
<td>8.5</td>
</tr>
<tr>
<td>Completing a physical examination of a patient</td>
<td>7.9</td>
<td>1.6</td>
<td>8.4</td>
</tr>
<tr>
<td>Legislation relating to chiropractic care (e.g. imaging)</td>
<td>7.3</td>
<td>2.0</td>
<td>8.0</td>
</tr>
<tr>
<td>Selecting the appropriate diagnostic investigation</td>
<td>7.1</td>
<td>1.8</td>
<td>7.7</td>
</tr>
<tr>
<td>Interpreting the diagnosis</td>
<td>6.7</td>
<td>2.0</td>
<td>7.6</td>
</tr>
<tr>
<td>Identifying appropriate evidence-based care</td>
<td>7.0</td>
<td>1.9</td>
<td>7.5</td>
</tr>
<tr>
<td>Evaluating scientific research methods in the context of clinical practice</td>
<td>7.0</td>
<td>1.8</td>
<td>7.4</td>
</tr>
<tr>
<td>Being able to describe the spectrum of health needs of a patient</td>
<td>6.3</td>
<td>1.9</td>
<td>7.4</td>
</tr>
<tr>
<td>Knowing when and how to make referrals</td>
<td>6.3</td>
<td>2.1</td>
<td>7.3</td>
</tr>
<tr>
<td>Developing and documenting a plan of care</td>
<td>6.0</td>
<td>2.2</td>
<td>6.7</td>
</tr>
<tr>
<td>Applying therapeutic psychomotor management and condition management</td>
<td>5.9</td>
<td>1.9</td>
<td>6.0</td>
</tr>
</tbody>
</table>
Table 1 is a combination of the rating scores from employers, newly qualified practitioners and final year students on perceptions of competence when carrying out certain tasks. The same list of 14 clinical skills and knowledge were asked of all 3 target audiences. The data are shown by ‘mean’ rating and SD - standard deviation\(^\text{17}\); the latter indicating reasonably consistent views within and between groups.

Those skills rated as the highest three are highlighted above in Table 1, and the skill that all three groups rated as the lowest is ‘applying therapeutic psychomotor and condition management’\(^\text{18}\). One trend that is immediately apparent is that in all cases employers rated preparedness of the newly qualified practitioner lower than both the ratings newly qualified practitioners and students gave themselves.

Another, potential, but weaker trend is that newly qualified practitioners feel more prepared than students in what are the earlier steps in a patient encounter (consent, capacity, taking history, examining). It has been suggested that this may be because these are skills which are often developed tacitly in students, which they do not realise they have acquired until they are out in practice. It is possible that students feel more prepared in the later steps in the patient encounter (for example: interpreting diagnosis, identifying evidence-based care, evaluating research, health needs, referring, plans of care) which may be more dependent on academic knowledge and application. As students could not pass the clinic entrance exam without some of these skills, they do therefore become highly practiced in such skills as undergraduates.

A reason why newly qualified practitioners may feel a little less prepared in such skills could be due to finding it harder to conduct these processes rapidly with patients in front of them - rather than being able to research their cases and consult references before making such decisions as they had done in the student clinic setting.

### 2.2.2 Employer views on clinical skills and knowledge preparedness

When looking at the differences between those who currently employ or work with a new registrant, and those who do not, the top four (Table 2) and bottom four (Table 3) ratings differ only slightly.

In contrasting the two groups’ opinions, ‘how to obtain consent from a patient’ and ‘taking a patient’s history’ are rated top and approximately the same for new registrants being most prepared, but the third and fourth areas of ‘being able to assess a patient’s capacity to make a decision’ and ‘completing a physical examination of a patient’ reveal very small differences of opinion as can be seen below.

---

\(^{17}\) Standard Deviation is a measure of the dispersion of the data in the sample and to that extent it describes how widely or narrowly the results are spread from the mean.

\(^{18}\) for ease of use this has been shortened to applying therapeutic psychomotor and condition management
Table 2: Top 4 areas in which new registrants are considered to be MOST prepared- Employers

<table>
<thead>
<tr>
<th>Currently employ/work with</th>
<th>Mean Rating (n = 48)</th>
<th>Do NOT currently employ/work with</th>
<th>Mean Rating (n = 92)</th>
</tr>
</thead>
<tbody>
<tr>
<td>How to obtain consent from a patient</td>
<td>8.2</td>
<td>How to obtain consent from a patient</td>
<td>8.0</td>
</tr>
<tr>
<td>Taking a patient's history</td>
<td>8.0</td>
<td>Taking a patient's history</td>
<td>8.0</td>
</tr>
<tr>
<td>Being able to assess a patient's capacity to make a decision</td>
<td>7.9</td>
<td>Being able to assess a patient's capacity to make a decision</td>
<td>8.0</td>
</tr>
<tr>
<td>Completing a physical examination of a patient</td>
<td>7.7</td>
<td>Completing a physical examination of a patient</td>
<td>7.9</td>
</tr>
</tbody>
</table>

There are two areas that both groups agree graduates are perceived to be least prepared: ‘applying therapeutic psychomotor and condition management’ and ‘developing and documenting a plan of care’ (Table 3).

Table 3: Bottom 4 areas new registrants are considered to be LEAST prepared- Employers

<table>
<thead>
<tr>
<th>Currently employ/work with</th>
<th>Mean Rating (n = 48)</th>
<th>Do NOT currently employ/work with</th>
<th>Mean Rating (n = 92)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Being able to describe the spectrum of health needs of a patient</td>
<td>6.6</td>
<td>Being able to describe the spectrum of health needs of a patient</td>
<td>6.1</td>
</tr>
<tr>
<td>Knowing when and how to make referrals</td>
<td>6.3</td>
<td>Knowing when and how to make referrals</td>
<td>6.1</td>
</tr>
<tr>
<td>Developing and documenting a plan of care</td>
<td>5.9</td>
<td>Developing and documenting a plan of care</td>
<td>5.9</td>
</tr>
<tr>
<td>Applying therapeutic psychomotor and condition management</td>
<td>5.8</td>
<td>Applying therapeutic psychomotor and condition management</td>
<td>5.9</td>
</tr>
</tbody>
</table>

Employer respondents were asked to elaborate on the reasons for applying ratings below 5/10 ie indicating where employers feel newly qualified practitioners are least prepared. Three main themes emerged from the open responses in the survey.

1. New registrant’s lack of confidence/experience – employer views

Employer respondents point to an overall lack of training and experience in practice, meaning that, in one respondent’s words “they come out of college scared to act”. Specific areas in which new registrants are perceived to lack confidence and experience include:

- Developing individual care plans
- Not enough patient-centred care
- Taking a patient and treating them as individuals
- Managing cases
2. New registrants lack sufficient skills/knowledge - employer views

Areas that were highlighted as particular aspects for concern include poor decision-making and critical thinking. A small number of respondents suggested that new registrants only have a basic knowledge when they start to practise. Other comments focussed on examination techniques, with respondents suggesting that new registrants demonstrate poor physical examination skills, not corroborating findings or suspicions, or explaining what is wrong fully to the patient.

3. Perceived limitations of course coverage – employer views

A small number of respondents highlighted shortcomings in course content, with suggestions including ‘nutrition’, planning management of care and insufficient emphasis on a ‘real world’ practice, as opposed to the college/university environment. This later commonly being attributed to the fact that providers are not considering the commercial world and the time allowed for seeing patients in clinics as opposed to the time allowed on the course. Someone suggested it might be two hours at the University but in practice it is normally less than half that time.

These three themes were further explored within the in-depth interviews with employers who currently employ newly qualified practitioners. One or two of these employers mentioned additional weaknesses such as the newly qualified practitioner having been taught to treat the pain area and not necessarily the cause of the pain, or having a lack of experience of different techniques.

‘They make the patient fit their technique rather than adapting the technique to fit the patient’.

Employer

A subsidiary mention that emerged from two employers is that they feel graduates are becoming physical therapists because of the lack of a range of techniques being applied. On this, two other employers mentioned that new graduates are confused about what it means to be a chiropractor and basically treat patients as though they are a physiotherapist/physical therapist.

One employer/stakeholder countered this view by suggesting that the issue is more that the graduate does know a range of techniques but as they have not used them all straightaway in their first year they tend to forget the full range that they have learned as a student. These skills come back and are often reminded about when they have access to a mentor.

2.2.3 Newly qualified practitioner views on clinical skills and knowledge preparedness

Newly qualified practitioner respondents were asked to give an explanation if they had rated any of the 14 competences at lower than five on a scale of 1 to 10, i.e. indicating areas where they felt least prepared.

Eighteen newly qualified practitioner respondents provided responses, of which seven specified that these areas were not covered in their education. All seven had rated ‘developing and documenting a plan of care’ as five or below and six of the same respondents also rated “apply therapeutic psychomotor and condition management” a five or below.
“We were categorically not told how to manage or prepare a care plan in university. It was a very grey area, where every patient would probably be ‘diagnosed’ with ‘facet irritation’ and told to come twice a week for one week and then ‘see how it goes’ and ‘maybe image if we don’t get results’.”

“No education or advice on treatment plans and scheduling”

“The preparation for creating patient treatment plans was absolutely pathetic. We were given no real idea of what constituted a realistic treatment plan and timeframe for recovery from chronic conditions.”

“Care plans at uni were ‘see them a few times and see how it goes’. Never time or length for condition severity and chronicity”

“I never really learnt how to make a treatment plan during my studies”

“We didn’t really encounter it enough in my institution”

Other skills and knowledge mentioned by newly qualified practitioners that they felt they would have benefited from further study, include:

- Identifying psychosocial issues with patients
- Managing other chiropractors and managers/practice management skills
- Technique skills, yellow flags/red flags, differential diagnosis considerations
- GCC regulations/legal side
- Functional rehabilitation
- Diagnostics
- Ethical treatment of patients

2.2.4 Final year student views on clinical skills and knowledge preparedness

Six student respondents explained their reasons for giving a rating of 5 of less, indicating where they feel least prepared. A common theme emerged of feelings where they hadn’t had that much teaching on and, consequently, a chance to practise certain skills and knowledge. Some of those comments are given below:

“How not always sure what further investigations are required based on presenting symptoms (on selecting the appropriate diagnostic investigation)”

“That aspect (applying therapeutic psychomotor and condition management) was not taught much through the years of study”

“I can notice when someone is not quite with it, but I don’t know where the line is for when they can’t make decisions for themselves”

“Little training in psychology which has hindered some treatments”
Other open text comments from students were split into those additional areas in which students feel comfortable and well prepared and those they do not. For the former, 10 students elaborated as follows:

- Patient handling/patient communication and safety/developing a good rapport
- Acting as a professional individual to patients & moving to a new stage of development
- Adjusting technique and treatment techniques
- Home exercise and self-care
- Running a business and record keeping

There is no notable difference in the aspects in which they feel prepared depending on whether they have had experience prior/during their course.

For the latter (where they feel not well prepared), five student respondents highlighted feelings of poor preparedness in:

- Report of Findings
- Giving the correct treatment
- Adjusting techniques
- Gait Analysis/rehabilitation

2.2.5 Other clinical skills and knowledge and perceptions of preparedness

All three groups of respondents were asked to supplement those lists of clinical skills and knowledge with other comments or additional skills and knowledge that had hitherto not been mentioned in either a negative or positive sense. Appendix 3 provides a summary of those additional comments provided by each respondent type.
2.3 Overview on degree programmes preparing graduates for practice

This section explores views about the chiropractic degree programmes. Firstly, employers were asked to what extent they agree with statements relating to new registrants’ degrees. This was also asked of newly qualified practitioners: how well prepared they feel, now they are practising, following their degree programme. Final year students were also asked to comment on their degree programmes and how prepared they feel in readiness for practice when they become new registrants.

✓ Employers agree that new registrants’ degree programmes prepare them with the clinical knowledge (85%), and addressing patient safety (87%), however there is a mix of opinions when talking about interpersonal and communication skills.

✓ 100% of newly qualified practitioners agree or strongly agree that their degree programme provided them with knowledge of addressing patient safety, this was closely followed by 92% for the degree provided the requisite clinical knowledge. Ninety percent believe the degree allowed them to develop good interpersonal and communication skills.

✓ Final Year students agree or strongly agree (94%) that the degree will provide the requisite clinical knowledge closely followed by 90% strongly agreeing/agreeing that that the degree will have ‘developed their professional skills’ and ‘allowed you to develop good interpersonal and communication skills’ (87%).

✓ Newly qualified practitioners rated their degree course in terms of preparation for their first job as 7.2 out of 10. Final Year students rated their degree course in terms of anticipated preparation for their first job as 7.9.

2.3.1 Comparisons between employers, newly qualified practitioners and students on degree programmes preparation for chiropractic

All three types of respondents were asked to rate their level of agreement about degree programme preparation of new registrants in certain areas and those that strongly agree or agree, as the majority proportion, is shown in Figure 3. The full ratings for each target group are shown in Figures 14, 15 and 16 in Appendix 3.

Open text questions allowed respondents the opportunity to explain their ratings and are described in the following sub-sections.
Figure 3: Views on degree programme preparation from employers, newly qualified practitioners and students answering strongly agree or agree

- Provided the requisite clinical knowledge
- Exposed them to a variety of patient cases
- Provided them with experience of a range of clinical conditions
- Provided them with knowledge of addressing patient safety
- Provided sufficient supervised clinical practice
- Prepared them for practice as a result of assessments conducted during the degree
- Taught them how to evaluate their own competence and when to refer
- Prepared them to update their skills and knowledge as they progress in their career (CPD)
- Developed their professional skills
- Allowed them to develop good interpersonal and communication skills

<table>
<thead>
<tr>
<th>Employer</th>
<th>NQP</th>
<th>Final Year Student</th>
</tr>
</thead>
<tbody>
<tr>
<td>85%</td>
<td>92%</td>
<td>94%</td>
</tr>
<tr>
<td>76%</td>
<td>81%</td>
<td></td>
</tr>
<tr>
<td>77%</td>
<td>77%</td>
<td></td>
</tr>
<tr>
<td>100%</td>
<td></td>
<td></td>
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<td>87%</td>
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<td>85%</td>
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<td>81%</td>
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<tr>
<td>78%</td>
<td>77%</td>
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<tr>
<td>61%</td>
<td>74%</td>
<td>74%</td>
</tr>
<tr>
<td>54%</td>
<td></td>
<td>81%</td>
</tr>
<tr>
<td>43%</td>
<td></td>
<td>80%</td>
</tr>
</tbody>
</table>

Provided the requisite clinical knowledge
Exposed them to a variety of patient cases
Provided them with experience of a range of clinical conditions
Provided them with knowledge of addressing patient safety
Provided sufficient supervised clinical practice
Prepared them for practice as a result of assessments conducted during the degree
Taught them how to evaluate their own competence and when to refer
Prepared them to update their skills and knowledge as they progress in their career (CPD)
Developed their professional skills
Allowed them to develop good interpersonal and communication skills
2.3.2 Employer views on degree programme preparation

Employers and colleagues of new registrants were asked the extent to which they agree with aspects relating to how well degrees prepare individuals for practice.

The two areas on which employer respondents most agree (‘agree’ or ‘strongly agree’) are that new registrants’ degrees:

- ‘Provided them with knowledge of addressing patient safety’ (87%) and
- ‘Provided the requisite clinical knowledge’ (85%).

The area that the most respondents disagreed/strongly disagreed with is the degree ‘Allowed them to develop good interpersonal and communication (33%)’ supporting open responses which suggest that new registrants’ communication skills need to be improved.

- Of those who currently employ a new registrant, they are most in agreement that new registrants’ degrees ‘provide requisite clinical knowledge’ (87%).
- Of those who do not currently employ a new registrant they are most in agreement that degrees ‘Provided them with knowledge of addressing patient safety’ (89%) than the other aspects.

Twenty employer respondents provided reasons for disagreeing/strongly disagreeing with the given statements. Of those who elaborated, respondents feel that degrees do not provide adequate exposure to different cases or clinical conditions. For example, one employer respondent stated “From my own personal experience, I didn’t see a cervical case in my clinical year at uni”, while another who currently employs a new registrant said that there is “hardly any exposure to different cases/people and this is reflected in method of exam, communication and treatment”. Another stated “Students at my institution are not exposed - very minimal special populations or technique systems”.

Others feel that the degrees do not sufficiently develop knowledge or communication skills. It is important to note here that respondents commenting on knowledge and communication skills were adding this feedback at a later and different point than those who highlighted general issues with knowledge and communication skills earlier in the survey questionnaire.

“Very little on communication and how to develop patient rapport, the most important part of the job”

“The key skill missing in the last 2 chiropractors I’ve employed has been confident and effective communication”
“College has taught them that all patients are medical problems not humans”

“It’s barely touched upon. Communication is the most important aspect of practice.”

“They have a total lack of knowledge”

“Very little on communication and how to develop patient rapport, the most important part of the job”

When considering how many of the twenty respondents currently employ or work with a new registrant, it appears very few offering these comments currently do, therefore these criticisms are not necessarily based on recent experience.

2.3.3 Newly qualified practitioner views on degree programmes preparation for chiropractic

Newly qualified chiropractors were asked the extent to which they agree with a number of aspects relating to how well their degrees prepare them for practice.

In general, the responses seem positive on all aspects. All 60 respondents either agreed or strongly agreed that their degree provided them with the knowledge of addressing patient safety. Following this, 92% agreed/strongly agreed that the degree provided the requisite clinical knowledge and 90% that the degree allowed them to develop good interpersonal and communication skills.

The percentages for disagreeing with any of the aspects are quite low. The highest proportion that disagreed/strongly disagreed with one of the aspects was 14% of respondents for “Provided you with experience of a range of clinical conditions”.

When asked to provide an explanation for any responses of “strongly disagree”, a small minority provided further comment:

“Chiropractic technique classes through university were horribly understaffed, with possibly 2 lecturers to 50+ students, many of these lecturers having not been in practice for long periods of time, so giving quite unhelpful ‘manipulating’ advice.”

“Was not covered in the curriculum and I felt like personal beliefs of the tutors prevented these discussions”

“In terms of preparing us for practice we were only prepared in the purely scientific/diagnostic sense. However, we had no real preparation for the realities of practice life. The preparation for patient communication was virtually non-existent. Again, many of the tutors aren’t able to teach this because they aren’t very good at it themselves. I have had extra study and used a consultancy to work on this. At the time of leaving college I was absolutely hopeless.”
“New patient, report of findings, obtaining patient referrals, marketing, running the clinic, training CAs on communication with patients, all above communication skills were not even explained that they will be necessary in being a successful practitioner.”

In general, newly qualified chiropractors feel that the experience on their degree course prepared them for their first job relatively well. Out of 10, the mean rating was 7.2.

2.3.4 Student views on their degree programmes preparation for chiropractic

Final year students were also asked the extent to which they agree with a number of statements about the degree programme they are undertaking.

Student respondents feel strongly that their degree will have ‘provided the requisite clinical knowledge’ (94%), closely followed by 90% strongly agreeing/agreeing that that the degree will have ‘developed their professional skills’ and ‘allowed you to develop good interpersonal and communication skills’ (87%).

The aspect where respondents feel the degree will prepare them least is ‘prepared you to update your skills and knowledge as you progress in your career (CPD)’, however it is important to note that the responses are high at 74%.

In general, final year students feel fairly well prepared for practice with respondents giving an average score of 7.9 out of 10 when asked to rate their preparedness. Only one respondent rated 1 when asked to rate their preparedness, however provided no explanatory comment.

Overall, student respondents seem satisfied with their degree courses, offering no additional comments for any low ratings.
2.4 Overview on levels of confidence applied to certain skills

**Summary:** this section describes the views employers, newly qualified practitioners and final year students hold on their levels of confidence when applying certain skills. The same list was asked of all three groups and the sections below show the ratings (from 1 to 5) applied to each.

- Employers: confidence rating was highest for *applying clinical skills* (3.7). The lowest at only a slightly lower rating was ‘understanding the work environment’ (3.1).

- Communication is a significant issue that a third of interviewed employers provided responses on why/how they were not content with these skills in new registrants.

- Newly qualified practitioners felt confident in: applying clinical skills (history taking, diagnosis and all that follows with treatment and care of patient) (4.0) and communicating with patients (4.0)

- Newly qualified practitioners also took the opportunity to comment on two other areas with which they felt they would benefit from help: patient management, including how to treat different population groups and different emotional needs, and setting up their own practice.

- Final Year students feel most confident in their communication skills with patients (4.5) followed by team working (4.2).

2.4.1 Comparison of views on levels of confidence with applying skills

All respondents were asked to rate their level of confidence in their own ability or those of new registrants by rating from 1 ‘not at all confident’ to 5 ‘highly confident’ to apply certain skills.

Table 4 below demonstrates the average ratings by respondent type. Open text questions allowed respondents the opportunity to explain these ratings and are described in the sections that follow. Again, the data are shown by mean and the measure of distribution (standard deviation).

The table shows that in almost every category employers applied ratings lower than newly qualified practitioners and students, and it is students who gave the highest ratings.
Table 4: All respondent views on levels of confidence of new registrants (rating 1 to 5) in applying their skills

<table>
<thead>
<tr>
<th>Areas of competence</th>
<th>Employers (n = 138)</th>
<th>NQP (n = 59)</th>
<th>Final Year Student (n = 31)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean</td>
<td>SD</td>
<td>Mean</td>
</tr>
<tr>
<td>Applying clinical skills (history taking, diagnosis and all that follows with treatment and care of patient)</td>
<td>3.7</td>
<td>.96</td>
<td>4.0</td>
</tr>
<tr>
<td>Applying practical hands-on treatment (for example, adjustments and manipulation etc.)</td>
<td>3.4</td>
<td>1.2</td>
<td>3.6</td>
</tr>
<tr>
<td>Communicating with other colleagues in healthcare</td>
<td>3.4</td>
<td>1.0</td>
<td>3.3</td>
</tr>
<tr>
<td>Team working</td>
<td>3.4</td>
<td>1.2</td>
<td>3.9</td>
</tr>
<tr>
<td>Communicating with patients</td>
<td>3.2</td>
<td>1.0</td>
<td>4.0</td>
</tr>
<tr>
<td>Understanding the work environment</td>
<td>3.1</td>
<td>1.1</td>
<td>3.5</td>
</tr>
<tr>
<td>Running an independent practice</td>
<td>2.2</td>
<td>1.1</td>
<td>2.8</td>
</tr>
</tbody>
</table>

2.4.2 Employer views on levels of confidence

The highest rating by employers is for ‘applying clinical skills’ (3.7). The lowest at only a slightly lower rating was ‘understanding the work environment’ (3.1). There was no difference when applying the filter for an employer employing/works with a new registrant.

In the context of ‘confidence’ employer survey respondents were asked if there were any other areas where new registrants needed to develop further to prepare them for practice. Of the 83 responses to this question, three themes were noted: communication skills, clinical techniques, and business/cross-cutting skills.

**Communication skills development – employer views**

Altogether 28 respondents feel new registrants need further development in communicating with patients and/or other staff members/healthcare practitioners.

Responses highlight that this applies to written and verbal communication and includes how to act professionally among other healthcare workers. Two of these respondents also mentioned teamwork of which one was concerned enough to say this needs to be “seriously addressed”.

This topic of communication was questioned further in the depth interviews with 20 employers who were willing to have a follow-up interview.
More than a third of those 20 interviewed employers were not content with new registrant communication skills. As one put it, the newly qualified can make it overly complicated when talking with patients, using too much jargon, talking too much and too long, thus giving too much (unnecessary) information. Others were perhaps more empathetic with the newly qualified practitioner’s situation and felt that better communication is something that new registrants will naturally develop over time with experience rather than being taught – coming with confidence as their own ability grows.

Clinical techniques development – employer views
Clinical techniques (e.g. imaging, adjusting, radiography; and experience in practice) were also highlighted by 21 employer respondents.

“Exposure to other chiropractic methods. They have been taught that maintenance wellness care is unethical”

“They need to be taught chiropractic skills, not the watered down version that is given today.”

“The management of disc problems including McKenzie assessment is currently sadly lacking.”

“Understanding the breadth of scope of practice and need to appreciate all aspects of different approaches”

Business/cross-cutting skill development – employer views
Marketing, sales, finances, taxes, and business management were cited by 21 employer respondents. Throughout the survey, business skills were highlighted as being important for new entrants to develop and retain their own client base – but which employers feel new registrants struggle to do.

2.4.3 Employer responses on patient views in relation to the confidence of newly qualified practitioners

Mainly based on the employer interviews it seems that employers hold mixed reactions from a patient point of view. Some explained that patients noted new registrants seem nervous, even unfriendly. To protect from that some employers explained they do not always tend to point out that someone is a new registrant. A common theme that did emerge from these interviews is that patients are known to say new registrants tend to be very thorough - implying they take a lengthier time than is probably the norm because of an in-depth assessment of patients.

One pointed to what they felt to be a common error of newly qualified practitioners which is I over-use of technical jargon with patients. The employer felt this is something they are educated to do at university.
A few employers say that newly qualified practitioners can be lacking in confidence in their ability to select the best treatment approach. They say newly qualified practitioners find difficulty with managing a patient’s expectations and have difficulty in knowing when they are experiencing such problems. But a common view was that the more cases, especially challenging cases, newly qualified practitioners gain experience of, the more confident they will become.

It was certainly acknowledged that whilst most newly qualified practitioners are fairly confident, being over-confident is just as bad: support in terms of having self-awareness and self-reflection – and shadowing and mentoring will help overcome any fears.

One employer with extensive experience of running a clinic and training in the profession noted a newly qualified practitioner often works, during the first 3 months, as though their clinical supervisor is still sitting behind them, and it takes usually about a further 3 months before they are performing for a patient and not for their supervisor.

2.4.4 Newly qualified practitioner views on their levels of confidence

Overall, for newly qualified practitioners the highest rating was for both “applying clinical skills” and “communicating with patients”. The lowest rated skill was “communicating with other colleagues in healthcare” and “understanding the work environment”.

When asked if there are any areas they feel they needed further development to help their confidence, 35 respondents gave indications and there were two themes that stood out:

- Patient management, including how to treat different population groups and different emotional needs, the tools and techniques to use, the treatment plan and treating the body as a whole. Technical skills around treatment were also mentioned including timing, posture and confidence. (10 responses)
- Setting up your own practice, including skills such as CPD, marketing and promotion as well as tax and business and accounts (17 responses)

Newly qualified practitioners had much to say on this latter subject:

“Running a practice is only 75% chiropractic. We are not prepared for this and I suggest that new graduates should not go it alone immediately. They are clinically safe and competent but few have the business skills.”

“Since setting up my own practice, I feel that I would have benefitted from having a Q&A session about setting up a clinic with recent grads etc. The business lectures we received were useful but seemed very detached and out of mind when thinking about my own clinic. They certainly were
useful, but I think having a mentor, or a friendly face to ask questions would have helped. I don’t think the RCC PRT scheme does this well after college and would rather it happened in college.”

“The business side of chiropractic was not taught at all, nor was what working life was really like i.e. CPD and what was expected etc. Basically, if it was outside the college and not directly linked to chiropractic, diagnosis and management they were not concerned with it.”

“Self-employed versus not being self-employed and what it means to be either. Tax returns and accountancy type information.”

“Some guidance on counselling patients with emotional needs such as depression”

“More advice on proper management plans and seeing patients through a course of treatment. Not just trying to figure out a diagnosis.”

“Education on how to manage patients more effectively. For example, in college we would usually only treat once per week and that is standard but it is not as effective in acute conditions in which I have found from being in practice and I think it is important to have more realistic treatment plans in place.”

“Training for specific population group (paediatric, pregnant woman, etc.),”

“I was confident to communicate with patients - I just didn’t know what to do with them!”

In addition, specific skills were named including: X-ray, positioning, report of findings, orthopaedic testing and diagnosis, adjusting, referral letters and MRI reading.

2.4.5 Final year student views on their levels of confidence

The area achieving the highest rating by final year students is: ‘communicating with patients’ (4.45). This contrasts with a number of comments from employers, suggesting communication is an area of weakness in new registrants. Final year students were also asked about ‘running an independent practice’ to which they gave the lowest rating of 2.8. This supports employer views who feel that new registrants lack the business skills to run a practice, who also rated this as the lowest at 2.2

Twelve student respondents mention additional areas where further development could help their confidence. They refer to either hands on experience or business skills.

Student respondents who had no experience either prior to or during their degree focus on transferrable business skills listed: “Learning how to get & retain patients from scratch without an existing patient base from the get go”; “As someone with comparatively less life experience the business/advertising aspect is difficult”; “business and tax system for self-employment” and, “marketing”.

Those with experience tend to focus more on the skills relating to the actual profession such as “technique variations. Philosophy”; “treatment techniques, adjusting and patient management planning”; “Do a realistic new patient examination. To go from a 2h examination to 45min”; “Communicating with other colleagues in healthcare, beyond GP letters. i.e. for GP referrals/GP talks” and; “More time in clinic to expose us to more conditions”.

2
2.5 Overview on levels of business skills/entrepreneurship

Although, only employers were asked specific questions in the survey on the subject of business skills, the topic has occurred within feedback from newly qualified practitioner and students, some of whom feel unprepared in this matter.

✓ This is a relatively common theme mentioned by employers, newly qualified practitioner and students.

✓ The main view of those employers who feel that newly qualified practitioners are poor at this is that insufficient focus is being given on the course to students about business skills/ethics – for example: being able to ask for the money and manage treatments in a reasonable period of time.

✓ 60% of employers strongly disagree/disagree that new registrants are good at business development, whereas 16% strongly disagree/disagree new registrants are good at patient care.

2.5.1 Employer views on preparedness with entrepreneurial/business skills

Employers were asked to rate to what extent they agreed that new registrants were good at certain business/entrepreneurial skills; only 5% agree or strongly agree that new registrants are good at business development (Figure 4).

Figure 4: Extent to which employers agree new registrants are good at entrepreneurial/business skills

<table>
<thead>
<tr>
<th>Area</th>
<th>Strongly disagree</th>
<th>Disagree</th>
<th>Neither agree nor disagree</th>
<th>Agree</th>
<th>Strongly agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>New registrants I have worked with are good at business development (128)</td>
<td>24%</td>
<td>36%</td>
<td>35%</td>
<td>3%</td>
<td>8%</td>
</tr>
<tr>
<td>New registrants I have worked with have good marketplace awareness (128)</td>
<td>13%</td>
<td>38%</td>
<td>40%</td>
<td>8%</td>
<td>2%</td>
</tr>
<tr>
<td>New registrants I have worked with are good at strategic and ongoing developments (128)</td>
<td>5%</td>
<td>33%</td>
<td>46%</td>
<td>11%</td>
<td>2%</td>
</tr>
<tr>
<td>New registrants I have worked with are good at managing budgets (128)</td>
<td>13%</td>
<td>27%</td>
<td>52%</td>
<td>6%</td>
<td>2%</td>
</tr>
<tr>
<td>New registrants I have worked with are good at patient care (123)</td>
<td>6%</td>
<td>11%</td>
<td>29%</td>
<td>49%</td>
<td>7%</td>
</tr>
</tbody>
</table>

Base: 123-128, Employers Survey, 2017
In contrast 56% of respondents either agree or strongly agree that new registrants are good at patient care. Although more respondents who currently employ a new registrant agreed/strongly agreed that new registrants are good at patient care (70% compared to 47% of those who do not currently employ an new registrant), the pattern remains that business development is perceived to be the weakest skill and patient care remains the strongest.

The survey asked in an open question about new registrants’ strengths in relation to business/entrepreneurship: 27 out of 62 employer respondents feel that new registrants are not strong in any areas of business/entrepreneurship. However, a small number state areas such as working out earnings, social media and marketing, business communications and enthusiasm to learn as areas of strength.

In relation to skills new registrants were least good at with regard to business/entrepreneurship, communication skills are mentioned by 19 respondents as an area in which skills can be lacking. Communication skills include patient retention, patient care and understanding patients’ needs.

Additionally, specific business skills were mentioned by 34 out of the 72 respondents: such as marketing and advertising themselves, networking, lead generation, managing finances, timekeeping, tax and insurance were all mentioned as areas that new registrants are least good at.

Thirteen employer respondents stated here that new registrants were good at little or no business/entrepreneurship activities.

The majority of respondents who stated that new registrants are not good at any area of business/entrepreneurship do not currently employ a new registrant.

“It depends on their life experience. It is not an area that appears to be covered in their course”

“They are not properly prepared to have to take on "grown-up" responsibilities - i.e they are too protected at their Chiropractic institutions”

However, in contrast some employers had sympathy with this situation and didn’t expect newly qualified practitioners to have such skills. In fact, one went further to say:

‘We are not business people we are chiropractors’
Business/practice management skills were reported by 13 of the respondents, stating that they were underprepared for self-employment and running a practice. Skills such as negotiating contracts, the legalities, accounts and marketing, and taxes.

One respondent however, did indicate “I don’t think it’s mandatory but would be good to have an optional module or extra help for those that want to go self-employed”.

Eight respondents state that they have been given either very little or no business responsibility by their employer since they started practising, two of whom said they are not employed. Another respondent explicitly states “I ran my own practice. Had to do everything.”

Of the other responses, 13 mention marketing, social media or advertising in the form of newsletters and blogs. A further five respondents were given the responsibility of conducting talks. The responses vary from WI groups to local businesses and public speaking. Four respondents mention networking and building their patient base, three respondents were focussed on learning the structure of the practice and office procedures, two mention outreach and two mention arranging screenings. One individual said they were given the responsibility of supervising the health care assistant.

The most common areas of business/entrepreneurship newly qualified chiropractors feel they are strongest in are cross cutting skills such as marketing, business development, organisation, sales, networking, financial and communication (building rapport).

Other areas briefly mentioned in this context, albeit not directly linked to business skills, include:

- Referrals
- Adjusting
- Giving advice
- Patient expectations and safety
- Patient care/interaction
- Patient generation
- Managing and mentoring a team
- Marketing
- (it’s) too confusing on what we are allowed to say we treat
- Surrounding clinics can be hostile to ‘competition’ and new grads so liaising and meeting other chiropractors in your area is hard. They appear threatened by you. It’s a shame really.”
2.6 Comparisons of views on applying the Code

Employers and newly qualified practitioners were asked to what extent they agreed or disagreed that new registrants apply the Chiropractic Code: Standards of Performance, Conduct and Ethics for Chiropractors19 (Figure 5).

Figure 5: Employer views on new registrants applying the Code

<table>
<thead>
<tr>
<th></th>
<th>Employer</th>
<th>NQP</th>
</tr>
</thead>
<tbody>
<tr>
<td>Show strong evidence of chiropractic values</td>
<td>42%</td>
<td>65%</td>
</tr>
<tr>
<td>Are familiar with the GCC’s Code</td>
<td>83%</td>
<td>96%</td>
</tr>
<tr>
<td>Are applying the GCC’s Code to their everyday clinical practice</td>
<td>78%</td>
<td>98%</td>
</tr>
<tr>
<td>Apply their chiropractic values and standards well in clinical practice</td>
<td>51%</td>
<td>85%</td>
</tr>
</tbody>
</table>


2.6.1 Employer views on new registrants applying the Code

The area where employer respondents mostly agreed or strongly agreed was that new registrants are ‘familiar with the GCCs Code’ (83%), which was then closely followed by ‘are applying the GCC’s Code to their everyday clinical practice’ (78%) which contrasts greatly to the rating from newly qualified practitioners. It is noticeable that again employers have lower ratings to all statements on applying the Code than the newly qualified practitioners.

2.6.2 Newly qualified practitioner views on new registrants applying the Code

The area where newly qualified practitioner respondents mostly agreed or strongly agreed was that new registrants are ‘are applying the GCC’s Code to their everyday clinical practice’ (98%), which was then closely followed by ‘familiar with the GCC’s Code’ (96%). This latter shows some support for the employer results.

The lowest (but still chosen by a relatively high proportion of respondents) statement agreed with was ‘showed strong evidence of chiropractic values’, which again supports the employer results.

19 http://www.gcc-uk.org/good-practice/
3 Transition and support

3.1 Post Registration Training (PRT)

The purpose of the PRT, which has been around since 1999 in some form, is to provide a quality-assured framework to support the transition from the undergraduate setting to the autonomous clinical practice setting, within the best interest of patients.

Whilst PRT is voluntary, participation and successful completion is a requirement of RCC membership, a policy mirrored by the British Chiropractic Association (BCA) and the McTimoney Association (MCA) that all new graduate members are required to complete the PRT programme to retain their membership. Although, the other professional bodies – the United Chiropractic Association (UCA) and Scottish Chiropractic Association (SCA) - do not currently have such a policy it is recognised that some of their members do choose to undertake the programme.

The current PRT programme essentially provides a broad and comprehensive first year of professional development which includes development planning, reflective small group meetings in clinic, and regional education meetings with peers, clinical observations/assessment and clinical audit. It has recently been enhanced with a greater emphasis on business-related skills. Feedback sessions and observations are an integral part of the training. A range of online learning modules are available to supplement the programme.

Fundamental to the success of the scheme is the use of voluntary trainers/mentors who are generally an employer of a PRT candidate. Looking to continuous improvement there has been some recent, significant enhancements for support material for tutors.

The scheme itself is aimed at a widespread, diverse range of candidates and it appears to have much support.

‘Everyone gets something from the PRT but for different reasons’

stakeholder

The General Medical Council’s research in 2012 pointed out that, whilst graduates naturally progress over time, it is during this complex transition period that many variables impact on the resulting state of preparedness felt by a trainee:

‘trainees can feel well-prepared for some aspects of patient care but not others, or feel prepared one day but not the next, or feel prepared in principle but unprepared for the volume or certain turns of events’.

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20 Monrouxe et al (2014), UK Medical Graduates Preparedness For Practice: Final Report
3.2 Overview of the transition phase and support mechanisms used

- 91% of employers feel mentoring is the best way to help newly qualified practitioner with transition into practice.
- 88% newly qualified practitioners chose mentoring and then shadowing (81%) as the most useful forms of support that newly qualified practitioners would welcome.
- ‘Mentoring’ was the most popular support mechanism, selected by 94% of final year student respondents, followed by ‘working in group practice and multi-disciplinary environments’ (81%).

Employers were asked to select from a list of choices (as displayed below in Figure 6) got transition and support and indicate which they believe to be effective or available for new registrants.

3.2.1 Employer views on transition and support

Transition and Support
Mentoring is the most mentioned mechanism of support, with 66% of respondents suggesting this is available to and accessed by new registrants (Figure 6).

Figure 6: Support mechanisms that are effective or available – employer views

- Mentoring
- Working in group practice and multi-disciplinary...
- Early engagement with CPD
- Do not currently employ/work with a new registrant
- Formal/informal ongoing support from your learning...
- Formal/informal ongoing support from your learning...
- None of the above
- Other

Base: 140, Employers Survey, 2017
In terms of mechanisms for supporting new registrants, the top three suggested by employers are: ‘mentoring’ (91%), ‘shadowing’ (64%) and ‘working in group practice and multi-disciplinary environments’ (56%) – Figure 6.

Compared to all employer respondents, those who currently employ or work with a new registrant are more positive about ‘mentoring’ (96%), ‘shadowing’ (70%) and working in group practice and multidisciplinary environments (61%).

Interestingly, those that do not currently employ or work with a new registrant rate ‘early engagement with CPD’ is the least appropriate mechanism (36%), however this mechanism is fourth most appropriate (52%) for those who do currently work with or employ a new registrant.

For the 8% that said ‘other’, two respondents suggested additional programmes such as the Royal College of Chiropractors PRT or the Test of Competence (ToC). Three other employer respondents suggested more exposure to clinical practice and techniques such as through visiting a range of chiropractors or a “requirement to do a variety of observations at different practices and reporting back”. The other responses were based around CPD in the form of “homework” and “more structured, mandatory CPD”.

A list is given below of the support of which employer respondents are aware in both their local area and their region.

<table>
<thead>
<tr>
<th>Support available locally</th>
<th>Support available regionally</th>
</tr>
</thead>
<tbody>
<tr>
<td>PRT (including RCC) (27 mentions)</td>
<td>CPD (25 mentions)</td>
</tr>
<tr>
<td>Mentoring/supervision (25 mentions)</td>
<td>PRT (including RCC) (24 mentions)</td>
</tr>
<tr>
<td>CPD (19 mentions)</td>
<td>None/not aware (12 mentions)</td>
</tr>
<tr>
<td>None (17 mentions)</td>
<td>Mentoring (7 mentions)</td>
</tr>
<tr>
<td>Shadowing (4 mentions)</td>
<td>Groups/workshops/seminars (3 mentions)</td>
</tr>
</tbody>
</table>

A number of employer respondents suggest the bigger issue is of new registrants’ lack of awareness of the support available to them.

All the interviewed employers felt that mentoring is vital as it gives them chance to hone and practise their hands-on treatment. Shadowing as an observational tool is a good form for providing advice. The chance to experience multi-disciplinary working is an excellent means to open newly qualified practitioners’ eyes to different techniques. Shadowing for at least a month is necessary, one employer suggested before getting to work with a patient.

Work placements were mentioned by several interviewed employers as a recommendation for consideration, either during or post the degree programme to help the student see a business in
practice and gain some insight into running a business.

‘It would be good if they could have a 2-week working experience in a clinic just shadowing or perhaps hands on. Most of the interns in the college are being shadowed by people who aren’t actually in the working practice. It would be good to have work placements throughout the course but the colleges are quite distant’.

**Post registration training (PRT)**

With regard to the PRT, very few interviewed employers were able to offer suggestions for improvement on the current scheme that were not already present. One employer ventured that instead of the 3 block sessions (A, B and C meetings) these could be changed from 3 ‘1 day’ events to 0.5 or 1 day a month. One other employer commented that perhaps a suite of options should be made available from which people can pick and choose, and that suite to include business/marketing techniques.

There were some contrasting views put forward on the ethos of the PRT: some wanted more time spent on refreshing and building on clinical skills, refreshing knowledge and underlining the importance of that knowledge and less time on the marketing and advertising side. Others however wanted more spent on business development, such as a greater focus on ethical building up business.

**3.2.2 Newly qualified practitioner views on transition and support**

Figure 7: Support mechanisms that final year students and newly qualified chiropractors envisage using or have used.

![Support mechanisms chart](image)

<table>
<thead>
<tr>
<th>Support final year student envisage needing</th>
<th>Support NQP's have accessed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mentoring</td>
<td>94%</td>
</tr>
<tr>
<td>Shadowing</td>
<td>88%</td>
</tr>
<tr>
<td>Early engagement with CPD</td>
<td>71%</td>
</tr>
<tr>
<td>Working in group practice and multi-disciplinary</td>
<td>67%</td>
</tr>
<tr>
<td>Formal/informal ongoing support from your learning</td>
<td>61%</td>
</tr>
<tr>
<td>Formal/informal ongoing support from your learning</td>
<td>58%</td>
</tr>
<tr>
<td>No support needed</td>
<td>57%</td>
</tr>
<tr>
<td>Internship</td>
<td>52%</td>
</tr>
<tr>
<td>Other</td>
<td>48%</td>
</tr>
</tbody>
</table>

Base: 29 Final Year Students, 2017: Base: 59 newly qualified practitioners
Figure 7 shows that again ‘mentoring’ was the most popular support mechanism accessed by 88% of respondents, followed by ‘shadowing’ (71%). Those who state ‘other’, specified the RCC PRT Scheme, paid for business and chiropractic philosophy coaching, online programs: communication, running the clinic, adjusting seminars, reading books and research, and working with other chiropractors.

Six newly qualified practitioner respondents gave a supporting explanation, four of which were about mentoring.

“Personally, had lack of mentoring and shadowing and would have liked more help in this area particularly in my first few months in practice”

“The mentor I had was a bully”

“It’s difficult to engage with mentor face to face when they have a full shift. Email and calling doesn’t always achieve the help required.”

“Mentoring is difficult to choose because we do not know what help we need.”

Another newly qualified practitioner respondent stated that it is difficult working in a multidisciplinary practice as everyone is busy with their own work and they feel like they cannot interrupt to ask questions.

“Working in a multidisciplinary practice has actually felt more disjointed than I expected. Everyone is too busy focussing on what they do, even when the clinic comes together- It feels harder for me to ask questions in that environment whereas for my own clinic I feel in a better position to ask other chiropractic friends as it doesn’t reflect so badly on myself or our profession.”

“the (PRT) scheme is not delivered consistently across all areas. In Scotland elements of the scheme are just given lip service and a tick box exercise. Most of the scheme focusses on areas that were not addressing the weaknesses I needed to improve.”

Newly qualified practitioner respondents were then asked what supervision, mentorship or CPD of which they were aware in their local area and region. Eight out of 47 respondents state that there is none/very little local to them, similarly, seven out of 45 respondents stated there is none/very little in their region. A list is given below showing support of which respondents are aware for new registrants locally and regionally.

<table>
<thead>
<tr>
<th>Support available locally</th>
<th>Support available regionally</th>
</tr>
</thead>
<tbody>
<tr>
<td>PRT (including RCC) (17 mentions)</td>
<td>CPD (11 mentions)</td>
</tr>
<tr>
<td>CPD (10 mentions)</td>
<td>PRT (including RCC) (22 mentions)</td>
</tr>
<tr>
<td>Mentoring/supervision (9 mentions)</td>
<td>None/not aware (7 mentions)</td>
</tr>
<tr>
<td>None (7 mentions)</td>
<td>Groups/workshops/seminars (3 mentions)</td>
</tr>
<tr>
<td>AECC courses (2 mentions)</td>
<td>Mentoring (1 mention)</td>
</tr>
<tr>
<td>Alumni support (1 mention)</td>
<td></td>
</tr>
</tbody>
</table>
Support and additional preparation for newly qualified practitioners

Other areas mentioned where newly qualified chiropractors feel least good at include:

- Work/life balance
- Encouraging referrals to others
- Proactive in spinal screening

Additional comments raised suggestions of how degree courses can be improved to prepare graduates for this transition phase. Two respondents said that their degree course covered the knowledge they needed but they had low confidence due to limited clinic experience.

“Technically my college covered everything I needed to be prepared, however in our final clinic year there seemed to be very little positive feedback. However, experience has taught me a lot that college could never have taught me.”

“I had a substantial lack of confidence despite good marks. I knew 10 reasons why not too adjust for every one reason to adjust.”

Other newly qualified practitioners suggested more opportunities to shadow and understand the real-world practice by shadowing different chiropractors, more talk of CPD, philosophical training, business training such as sales techniques. One feels that most of their preparation was self-directed beyond that which the course provided.

“During college clinic year it was patients who were finding us, outside it’s us having to find and convince patients about benefits of chiropractic. So, no marketing skills upon graduation..”

In thinking what would help with their transition some newly qualified practitioners reflected on what else the degree course could have done to have helped.

Three newly qualified practitioner respondents stated positively that they felt prepared for practice, one of whom states that their capabilities are not realised due to lack of practical experience on their course:

“Overall I graduated with the academic and practical skills to deliver a highly competent level of Chiropractic treatment to patients”

“I felt prepared but many I spoke to did not, I was a mature student which I think was on my side because this is something I really want to do, many are young and often doing it because their parents are chiros or they are not really sure what they want to do in life. Many graduates are in their early 20s and it is a big responsibility at an early age whereas I had life experience which has helped my communication with patients and feel I can better relate to them also”

Following from the last quote, another respondent feels younger graduates do not have the maturity required to be a chiropractor and are “more likely to bring the profession into disrepute”.

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ISO9001:2015/issue02
3.2.3 Final year student views on future support

Looking forward, final year students were also asked about the types of support that they envisage needing, when they are a practising chiropractor. ‘Mentoring’ was the most popular support mechanism, selected by 94% of respondents, followed by ‘working in group practice and multi-disciplinary environments’ (81%).

These findings broadly reflect those from the employers’ survey, although a much higher proportion of final year students selected ‘working in group practice and multi-disciplinary environments’.

Ten respondents gave final comments to supplement the survey responses two of which state they are very happy with the support they have received to date and feel prepared.

“\text{I feel that I have been well prepared and supported to date}”

“I am very happy with the excellent training I have received at my institution”.

Respondents also highlighted areas where they felt more guidance or experience would be appreciated and those ideas include:

- Staging of care and patient management report of findings in private care vs internship
- Review lectures on orthopaedic testing and differential diagnosis
- Earlier guidance on CPD events and development within our final year.
4 Conclusions and recommendations

This study will be useful for the GCC to understand perceptions on how prepared new graduates feel they are for chiropractic practice. The findings can form a baseline for any future research.

Overall, the perceptions point to employers feeling that new registrants are generally prepared for practice, with a few specific areas noted below as potential exceptions. Newly qualified practitioners were largely content with their preparation for practice as are, with some understandable small reservations, students in their final year.

In summary:

1. Most employers and newly qualified practitioners could offer some indications of what they felt being prepared for practice involves. Both explicitly mentioned being safe and referenced confidence and competence, but there was recognition that mistakes will be made in these early days of being a newly qualified practitioner.

2. Employers understand being prepared for practice involves patient care and good communication. Their views from the research suggest they perceive new registrants to be good at the former but less good at the latter. Newly qualified practitioners agree with preparedness for practice being about patient care/management, and patient safety as well as communication. Final year students talk about being safe and competent in practice. They also mentioned confidence.

3. 64% of employers feel that newly qualified practitioners are very well or sufficiently prepared for practice: 84% of newly qualified practitioners reported feeling very well or sufficiently prepared for practice when they first started practising.

4. Newly qualified practitioners rate their degree course at 7.2 (out of 10) in terms of preparing them for their first job when they started practising, and students rate it at 7.9 (out of 10).

5. Employers, newly qualified practitioners and students all agree that the clinical skill that new registrants are most prepared in is ‘obtaining consent from a patient’. Employers and students agree that the second top clinical skill in terms of feeling most prepared is taking a patient’s history.

6. Employers and newly qualified practitioners agree that the least prepared clinical skills are knowing when and how to make referrals, developing and documenting a plan of care, applying therapeutic psychomotor and condition management. Students agree, although they also stated they have a perception of being least prepared in legislation relating to chiropractic care (e.g. imaging).
7. Employers were ready to comment on additional skills they perceive newly qualified practitioners to be well prepared in, but of those other poorly prepared skills – the one skill mentioned most frequently (by 45% of those 81 employers providing responses) was communication.

8. The findings also suggest employers feel newly qualified practitioners are generally good on clinical skills but weak on business/commercial skills.

9. Newly qualified practitioners and final year students feel most confident about their communication skills with patients, a skill that employers feel – as stated above - somewhat more anxious about in regard to newly qualified practitioners.

Points 8 and 9 largely reflect the findings of the Osteopathy research in 2012: ‘New Registrants were positive about their preparedness for the interpersonal and communication aspects practice. Colleagues’ and Employers’ evaluations of New Registrants’ interpersonal and communication skills were a little more muted. They felt New Registrants’ interpersonal and communication skills were less well developed than clinical knowledge and skills, but better developed than business skills’.

Transition period:

This study also briefly examined the transition phase for the newly qualified. It was important to gain insight into preferred practice and common activities to help understand the challenges faced once students complete their training and graduate. This is relevant to those who, rather than go into a group practice to retain such support during their first year of independent practise, commence their chiropractic career as sole practitioners with no direct support. Students of chiropractic experience much of their training in dedicated clinics at their education institutions where they are subject to the supervision of senior colleagues whilst seeing and treating patients, but this would contrast significantly to their subsequent experience as a new registrant if they start off a new practice alone.

There are many ways of handling this transition period: expanding the role of clinic-based and placement-based learning in education programmes, something that a number of employers mentioned; and encouraging mentorship during the early months of qualified practice.

Other healthcare professions have a range of methods for ensuring newly qualified practitioners are eased into that first year of practising including introducing conditional registration or a supported foundation period; early engagement with CPD; working in group practices and multidisciplinary environments, and formal or informal ongoing support from education providers through, for example, alumni or specially set up associations for those new to the profession.

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Mechanisms for support:

Of the surveyed employers, 91% feel mentoring is the best way to help newly qualified practitioners with the transition into practice, slightly fewer newly qualified practitioners also focussed on mentoring (88%) followed closely by shadowing (81%) as the most useful forms of support. Again ‘mentoring’ was the most popular support mechanism selected by 94% of final year student respondents who also chose ‘working in group practice and multi-disciplinary environments’ (81%).

Again, in comparing the Osteopathy research of 2012, their new registrants find the transition from student to engaging with the business of osteopathy challenging: 61% of respondents provided examples of the business-related challenges they had faced.

With respect to transition into practice and mechanisms for supporting new registrants, the Osteopathic research explained ‘good quality clinic and placement learning during osteopathy degrees was needed to form the initial foundations of clinical practice’. Similarly, for mentoring: ‘New Registrants suggested that a more formal mentorship system would be beneficial and stressed the importance of mentors receiving training and being up to date in their own practice’.

Post Registration Training (PRT):

In the survey 27 employers suggested the PRT in the context of local available support. In the interviews all employers were highly supportive of and positive about the PRT scheme, endorsing its approach and usefulness to those newly qualified; most were or had been a trainer or mentor.

None of them had any major reservations should this become a mandatory scheme in the future if the currently voluntary position change as a result of amendment to the Chiropractors Act of 1994. The only issue raised was with respect to the fact that currently trainers on the PRT are volunteers: if the scheme becomes compulsory there may need to be some consideration of remuneration.

There were very few suggestions put forward on how to improve the current PRT and indeed most of the limited number of suggestions were already happening. One suggested having a more frequent opportunity of the one day network meetings in PRT by offering them as half a day. The views about the focus of the PRT were contrasting: some employers want more of a focus on refreshing and building on clinical skills to reinforce the importance of knowledge, and others want more on business development including building up a business ethically.

Limitations of the study

As mentioned at the start, this work was time-limited and relatively small scale which impacted upon, for example, the time available to follow-up with final year students and the newly qualified practitioners. There was limited scope or opportunity, therefore, to explore aspects or elements that emerged as a result of the research but which nonetheless would be useful to gain insight for future exploration and consideration by the GCC22.

22 The timing of the work did not permit follow up with the final year students due to the scheduling of exams and graduation. And in this first/baseline research, there were limited numbers of students or newly qualified practitioners providing permission for follow up interviews in the time available.
RECOMMENDATIONS:

For the General Chiropractic Council

1. *Repeat the research in a few years to be able to compare results over time.*

   - The research should again include employers/colleagues, new registrants (over a similar time frame of the last five years prior to the research), and final year students.

   - It should enable the opportunity to contrast responses across target audiences, and ideally use the same or most of the same questions used in this research to enable some longitudinal comparisons.

   - The length of time for the research should be at least ten months and over a full academic year to allow for opportunities to go back and interview willing participants of the surveyed group of all three audiences to allow follow-up, and gain deeper insight.

   - Focus groups with final year students (rather than phone interviews) should be factored in to enable the opportunity to clarify aspects or drill down into certain topics.

2. *For future research consider looking into 1) challenging situations and how newly qualified practitioners fare in such situations, and 2) examining communication skills in more detail.*

   - Whilst the first was not explicitly explored in this research, the Osteopathy research, previously mentioned, also identified this as an area of frustration experienced by employers and is considered a topic for further research; it therefore could form a topic for further research for the GCC too. Different research methods – such as scenario building in focus groups - may be required to test this out more explicitly.

   - Communication skills were mentioned by employers across the survey and in interviews as being a skillset that could be improved by newly qualified practitioners. It is unclear if this is a factor of age/different generations or if it is a significant problem worthy of further examination (see also recommendation 5 below).

   - The relatively low levels rated by surveyed employers on newly qualified practitioners’ application of the Code (see section 2.6) also warrants further investigation.

3. *The PRT seems to be well received and supported, and it is therefore recommended that, subject to legislative change, converting this to a mandatory scheme for all newly qualified practitioners regardless of association membership is considered by the GCC Council as a way forward for the future.*

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23 Although very few examples were given (one such example was a patient who was also pregnant) the subject of challenging situations was mainly mentioned implicitly. Communication skills is another area that should also be brought into consideration here.
For Education providers

4. Consider liaising further with clinics to arrange work placement opportunities with the intention of helping students acquire insight about the commercial aspect of the work and therefore provide experience of business and communication skills before course completion.

An allied recommendation is to consider generating opportunities to see and work in (as a placement) multi-disciplinary environments to go some way towards equipping the newly qualified practitioner with experience of the different techniques in use (and aid with communicating with other healthcare practitioners).

5. When the next review opportunity arises consider the degree course content in line with and in support of findings that indicate common perceptions of least preparedness for practice: these are in:

   a. Knowing when and how to make referrals
   b. Developing and documenting a plan of care
   c. Applying therapeutic psychomotor management and condition management
   d. And, for students, this also includes legislation relating to chiropractic care

For Education providers, CPD programmes and the Royal College of Chiropractors

6. Consider ways in which to enhance communication skills training and experience in an effort to reduce the apparent mis-match identified in the research between student/newly qualified practitioner views on their communication skills and employer views.

Employers spoke of communication in the following contexts, many of which could be treated as challenging situations:

   o showing more empathy for patients’ background and culture;
   o dealing with unsatisfied patients – including on matters of cost;
   o patient retention;
   o patients with more than one issue and;
   o emotional aspects.

• Communication is already a focus for the PRT but it could be that more work needs to be undertaken with graduates in their transition year.

• More emphasis could be placed on communication with patients in such situations mentioned above through placements, mentoring and role-playing.
For Chiropractors/employers in support of new graduates in transition:

7. To help support preparedness for practice – consider providing opportunities to new registrants such as mentoring, shadowing, and other pertinent means of broadening experience and providing support whether within the practice or drawing on it from other practices. This could include looking at CPD opportunities and post registration training (PRT).
Appendix 1: Respondent profiles

Employers

Data provided by 132 respondents showed 50% are from London or the South, 6% are from Scotland, 4% from Wales. The survey did not attract any responses from Northern Ireland. The other 40% are based in the north of England, east of England and Yorkshire and Midlands.

Over half of employer respondents are an employer/lead practitioner in a group practice (61%), while 27% are self-employed in a group practice and 17% are an associate practitioner/colleague in a group practice (Figure 8). This reflects a similar profile of the recent survey carried out in 2016 in which 31% of the sample responding to the GCC survey work on their own as opposed to a group practice.

Figure 8: Respondents' job status

Employers Survey, 2017

The majority of employer respondents (60%) have worked as a qualified chiropractor for 15 years or fewer, and in fact more than 1 in 5 (24%) for under five years (Figure 9). This is much the same for those who currently work with or employ a new registrant (61% have been a qualified chiropractor for less than 15 years with 28% having been qualified for between six and 10 years).
The size of practice ranges from zero employees to 40 (including full time and part time staff members). Half of the practices are micro businesses with only one or two staff members. Amongst those employers who do not currently employ or work with a new registrant, this proportion rises to 61%.

Respondents who employ or work with a new registrant are more likely to be employed in a larger practice. Forty percent of those who do employ or work with a new registrant employ more than full time two members of staff. Those who do not work with or employ a new registrant typically have just one full time member of staff in addition to themselves. Around 17% of those who do not employ or work with a new registrant employ two or more members of full time members of staff in addition to themselves.

Most of the new registrants with whom respondents work have been registered since 2016. The majority of new registrants are between 20-34 years old (Table 5) and around half of the new registrants with whom respondents work graduated from the Welsh Institute of Chiropractic (30 new registrants).
Table 5: Age of new registrants employed

<table>
<thead>
<tr>
<th>Age band</th>
<th>Total (numbers)</th>
</tr>
</thead>
<tbody>
<tr>
<td>20-34 years old</td>
<td>49</td>
</tr>
<tr>
<td>35-49 years old</td>
<td>5</td>
</tr>
<tr>
<td>50 and over</td>
<td>3</td>
</tr>
</tbody>
</table>

Base 57 (not all answered the question)

<table>
<thead>
<tr>
<th>Numbers of new registrants employed</th>
<th>Numbers of responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>93</td>
</tr>
<tr>
<td>1</td>
<td>32</td>
</tr>
<tr>
<td>2-5</td>
<td>13</td>
</tr>
<tr>
<td>6-10</td>
<td>0</td>
</tr>
<tr>
<td>11+</td>
<td>0</td>
</tr>
</tbody>
</table>

Base 138: Employers Survey, 2017

Out of all respondents, 13 of them report that they employ more than one new registrant. Eight report employing two new registrants, one reported employing three and another five – all aged 20 – 34. The other four respondents who employed two or three new registrants, had a mix of age ranges.

Newly qualified practitioners

Based on 60 respondents of which 46% are male and 54% are female, 7% are from Scotland, 11% from Wales and nearly half (47%) are from London or the South of England. The other 35% are based in the North East/East of England, Yorkshire and Midlands. The survey did not attract any responses from Northern Ireland or North West of England.
Figure 10 shows that nearly half (49%) of the respondents are self-employed in a group practice, while 14% are an employer/lead practitioner in a group practice and just 3% are self-employed as a locum.

The majority of respondents are in the age group of 20-34 (64%), while 29% are aged 35-49 and just 7% are 50 or over.

The spread of responses by institution from which they graduated is shown in the next chart.

Figure 11: Newly Qualified Practitioners’ former institution from which they graduated
Each year from 2012 to 2016, similar numbers graduated to those who registered with the GCC. Figure 12 shows the percentage of respondents for each year.

**Final Year Students**
Of the 31 respondents, just over a quarter are studying at the Welsh Institute of Chiropractic (26%); 29% at the McTimoney College of Chiropractic and 45% at the Anglo-European College of Chiropractic (Figure 13).

Respondents are predominantly female (61%) with an average age of 30 and began their degree on average in 2014. One of three respondent’s state that they had to retake a year of their course.

Figure 13: The institution where respondents study

![Bar chart showing the distribution of respondents across different institutions.]

To help set the findings into context, the survey also asked respondents if they have ever worked in a healthcare setting prior to undertaking their degree programme, or during it. Only 6 have prior experience and 10 have current experience.
Appendix 2: Literature research used to inform the methodology

Longitudinal studies

Investigating students’ perceptions of preparedness after graduation, Goldacre et. al. (2010) surveyed four cohorts of medical graduates from 1999, 2000, 2002 and 2005 one year after they graduated. In order to account for a change in views based on experience, the cohorts from 2000, 2002 and 2005 were surveyed again in their third post-graduate year. Postal surveys including rating questions on a five point scale from “strongly agree” to “strongly disagree” with statements such as “Experience at medical school prepared me well for the jobs I have undertaken so far” were sent nationwide covering graduates from all medical schools. The later cohorts were given additional questions about the areas of their role they felt less prepared in (clinical knowledge/procedures, administration, interpersonal skills, and physical/emotional/mental demands) and whether they regarded this as a serious issue. Additional free text boxes were included to add additional comments if they wished.

Lambert, et. al. (2013) also carried out a longitudinal study broadening the scope of the research to report junior doctors’ rating on aspects of the first training year including job satisfaction and opportunities. This research also covered the decade 2000 to 2010 and spanned the nation. This survey used rating questions on a five point scale asking to what extent the graduates agreed or disagreed with statements such as “Training has been of a high standard; Educational opportunities have been good; I have been expected to perform too much non-medical work; and I have had to perform clinical tasks for which I felt inadequately trained.” The surveys also had rating questions 1–10 covering how much the graduate enjoys their job and satisfaction with leisure time.

In Goldacre, et. al. (2010), data were analysed and findings reported by sex, ethnicity, medical school, degree type and graduate status and entry to medical school. The findings from this study suggest that the feelings of preparedness for medical graduates in Year one has improved over the years. Over a third of respondents reported that being unprepared was either a serious or medium problem. Findings also highlighted significant differences between medical schools and the reporting of preparedness. Once the doctors have three years’ experience practising, their views on preparedness altered and they were less likely to agree that medical school prepared them for practise. Ethnicity and medical school were statistically significant predictors in year one, and in year three, cohort was also a statistically significant predictor.

The area where most respondents felt unprepared was in clinical procedures while interpersonal skills had the lowest percentage of feeling unprepared. It suggested that further research could investigate the curricula such as the amount of exposure to clinical experience. Further research was suggested to look into the support received in the first year of practise to investigate whether the lack of preparedness is due to the medical school or supervision in the NHS.

Lambert et. al. found that while 30% agreed that their training and experience had been good and 38% agreed educational opportunities had been good in their first year of training, nearly 17% of
respondents in the study agreed with the statement “I have had to perform clinical tasks for which I felt inadequately trained.” This research supports the findings from Goldacre et. al. (2010) that graduates felt unprepared for practice.

Both of these studies covered the whole nation and therefore allowed for differences in teaching or diversity of the area. The studies were analysed throughout the period and improved as needed.

Comparing the cohorts meant that the studies could show the change in perceptions of preparedness over time and issuing the survey at the same time for each cohort ensured consistency with the amount of exposure trainees would have had to the job. However, the findings are a subjective view from only the graduates.

While this study was supported by research looking into specialist consultants concerns of year one preparedness to practise, there is also research to suggest doctors’ self-assessments of ability don’t necessarily correlate well with independent assessments of their ability. This is therefore a limitation of the studies. The studies did not allow for difference of perception from educators or superiors and with each cohort including different participants, no data were collected from senior doctors on personality characteristics that could affect the trainees experience and responses between each year. Additionally, the questions were very broad and responder’s interpretation of certain phrases could broaden the spectrum of what they have agreed or disagreed with. For example “interpersonal skills” could cover recording someone’s medical history to telling a patient some bad news. Because of this, the findings in this area could be of limited acceptance as there is no detail.

Small scale, time-limited studies

Matheson & Matheson (2008) investigated the perceptions of consultants and specialist registrars from two teaching hospitals in Trent Deanery. Questionnaires were sent out to all consultants and specialists registrars in the two biggest teaching hospitals, 6 months after the trainees had begun. Following an email reminder, there was a 51% response rate. Ninety-one questions, of which 73 were taken from Tomorrows Doctors covered themes such as scientific basis of practice, treatment, clinical/practical skills, communication skills, and medicolegal and ethical issues. The questions were a similar Likert scale rating style for phrases such as “Communicate sensitively clearly and effectively with medical colleagues” and “Carry out cardiopulmonary resuscitation and advanced life support”. Data were analysed comparing consultants responses with specialist registrars. The study was more detailed around the certain themes compared to the longitudinal studies however supported the findings that graduates were not prepared for starting work. Again, the clinical and practical skills as well as more challenging communication skills were seen to be lacking but graduates were prepared for basic communication skills and asking for help.

The northern deanery made up of Newcastle University, the University of Warwick and the University of Glasgow, used a multi-method approach of interviews, focus groups and questionnaires. Graduates from each school were selected based on their academic Medical Training Application score to ensure a representative sample of demographics such as age, sex, ethnicity and

24 A document outlining the knowledge, skills and behavioural outcomes for medical students
disability. A questionnaire was carried out for each university cohort during the shadowing period before beginning their foundation year to assess perceptions of preparedness. Interviews were then carried out with the graduates at the beginning, during and at the end of the Foundation year. Data was collected in the form of interviews and qualitative data from superiors such as the tutors, supervisors and the clinical teams to gather another perspective on preparedness and to inform understanding. Findings suggest that at the beginning, graduates felt prepared for basic clinical tasks and were confident in their communication skills. Some concerns were acknowledged about the limited experience of dealing with clinical procedures in medical school and graduates felt that these were skills they would acquire on the job. While differences emerged in personality and learning style, preparedness was mainly affected by factors such as the clinical placements, shadowing and the support of others at home and in the workplace. Follow up interviews found that there were some areas that the graduates could not predict they would be under-prepared such as adapting to hospital procedures, understanding the boundaries of the role. Some felt they were better prepared than originally thought. The perspective from the superiors supported these findings suggesting that the new doctors were capable and learned quickly. The general view however, was that more ward experience was necessary to increase confidence on-the-job. Few differences were found between the medical schools which contradicts findings from Goldacre et. al. (2010), however this could be due to interviews at different times of the training as well as including the views of tutors.

Both these studies individually were limited to specific areas or medical schools and therefore raised the question whether the findings would be the same in other regions. However the findings of both studies suggest that there is evidence of a lack of clinical experience in medical school reducing the feelings of preparedness. The Northern Deanery controlled for subjective views of graduates by including perspectives from a number of sources, strengthening the findings.

A study carried out to analyse the confidence levels of dental students at the School of Dentistry in Cardiff University and Dental School and Hospital in Cork utilised a questionnaire also using rating scale questions. This questionnaire, distributed to a total of 95 students in their final year requested information relating to how confident the students were at performing certain routine tasks. The tasks involved scale and polish, fissure sealant, delivery of oral hygiene instruction, surgical extractions, tooth bleaching, simple extractions, caries diagnosis, placement of preventive resin restorations and stainless steel crowns. Comparisons were made between the two universities, gender and whether the student would take on a year vocational training after graduation. In 2016, Ray et. al. carried out a study aimed to investigate the level of preparedness to practise and designed the Graduate Assessment of Preparedness to Practise questionnaire to address the gap in research. The questionnaire was piloted with Foundation Dentists and their Educational Supervisors. It covered the four domains of the General Dental Council’s curriculum (clinical, communication, professionalism, management and leadership) comprising a tick-box, 7 point Likert scale questions as well as free text questions to expand their views.

26 Northern Deanery (2008), How prepared are medical graduates to begin practice? A comparison of three diverse UK medical schools.
28 General Dental Council (2011), Outcomes for registration, item 12, Annex (i)
The findings from both studies further support previous research suggesting that the students are more confident in the procedures when they had more exposure of clinical experience. Therefore the more prepared they are for practising. Students from both universities were more confident in carrying out simple procedures such as scale and polish however varied on the more complex clinical procedures\(^2\). Ray et. al. (2016) found that after 10 months of training, the new dentists were well prepared for independent practice.

In 2012, the General Osteopathic Council (GOsC) commissioned a study to explore the perceptions of preparedness to practise among newly registered osteopaths; colleagues and employers; final year students; and selected staff at Osteopathic Education Institutions. The study utilised two online questionnaires inviting new registrants from the GOsC Register of Osteopaths and their colleagues to take part by email invitation, while focus groups with 6 out of 8 Osteopathic Education Institutions gathered the views from final year students and education staff\(^3\). The online survey was a cost effective way to ensure all new registrant population and their colleagues could take part irrespective of their location. Questionnaires included open and closed questions to explore specifics and the open responses were then used alongside focus group feedback. To encourage participation the GOsC led presentations to relevant groups and distributed a summary information sheet.

Five topics were examined in this study of osteopathy graduates’ preparedness to practise: clinical knowledge, interpersonal and communication skills, skills and competence, business and entrepreneurial skills and professionalism.

Clinical knowledge was felt to be enough to safely practice and had good clinical and scientific knowledge for correct clinical reasoning and action. However the findings suggest that with more engagement in clinical practice, graduates’ confidence and expertise would increase improving their holistic patient management and communication skills with other healthcare professionals.

Graduates were considered to be under prepared for responding well in challenging situations. Findings suggest that graduates have little knowledge or appreciation for factors that affect and build small businesses such as interpersonal skills. The data suggests that osteopathy degrees emphasise safe clinical practice, reducing the attention on other important aspects of working in a practice. Numerous approaches of support available for new registrants’ transition to practise were examined. It was highlighted that clinical tutor role models were of particular importance as well as good quality clinical and placement learning. Mentoring was popular after graduation and was valued by all participant groups. It was concluded that working in the profession is a continuous learning curve, but graduates are prepared enough to be safe for practice.

This study only included those graduates who registered with the GOsC, therefore different perceptions from those who did not become practising osteopaths were not sought. As previously mentioned, another limitation of the study is that not all colleagues and employers were included. Additionally responses to some questions may have been influenced by region.

\(^3\) Freeth, D., McIntosh, P. & Carnes, D., (2012), New Graduates Preparedness to Practise, Queen Mary University of London
Other aspects of preparedness that feature in other research include how well graduates perform in challenging situations. Again the GOSc research of 2012 noted that experienced osteopaths were not convinced of osteopathy graduates’ preparedness for responding well in challenging situations. This characteristic was also noted in research examining the preparedness of newly qualified midwives to deliver clinical care. An evaluation of pre-registration midwifery education, via an analysis of key events, noted that finding themselves in challenging situations resulted in a major impact on new midwives’ confidence, revealed gaps in knowledge or experience and, as a result, led to them experiencing frustration, conflict or distress. The conclusions of that research emphasised the value of mentoring by supervisors or senior staff.

Similarly, the same research for nurses and midwives pointed to the feelings of isolation and self-doubt arising due to the lack of support systems that had been in place during their education. This research questioned insufficient practical exposure to clinical working and a lack of interprofessional and multi-agency working resulting in new registrants not always knowing what options there are in terms of referrals and who to ask for help.

Support is a more complicated issue when healthcare practitioners work alone or operate independently in a practice as is often the case for chiropractors.

Other preparedness research has used comparisons between different learning environments. Research in 2014, which compared schools of osteopathy in Britain, France and Italy, found statistically significant associations between the learning environment and levels of preparedness, suggesting simple measures such as small classes could play a beneficial role.

Rapid review

A lot of research in the area of preparedness for practice have generalised topics and used the self-report method. Monrouxe et. Al., (2014), reviewed 81 manuscripts from between 2009 and 2013, carried out 185 interviews with stakeholder groups including F1 trainees, trainee doctors, employers, and educators. As well as this, audio-diaries were kept by 26 F1 trainees for 4 months. The data collected helped to understand how preparedness for practice is conceptualised, measured, how prepared UK medical graduates are for practice and the most effective interventions used by exploring the perceptions of various sources. It was found when reviewing the literature that there was no single definition for preparedness and literature used terms such as “readiness”. “Both a long- and short-term venture that included personal readiness as well as knowledge, skills and attitudes”, is how Monrouxe et. al. (2014) conceptualised preparedness to practice.

Their literature review explored transitional intervention effectiveness suggesting that while findings varied, shadowing is a typically effective intervention as well as an induction. With regards to specific skills, tasks and knowledge, although there is variance between the literature, evidence suggests graduates are prepared for venepuncture as well as basic clinical tasks such as history taking and full physical examinations. The literature suggests that graduates are less prepared for specialist procedures and issues around legalities of prescriptions, clinical reasoning and diagnosing.

31 University of Limerick, 2012
There were mixed results for interpersonal (team-working and communication) and technological (error, safety and understanding of the clinical environment) aspects of preparedness.

The interviews and audio diaries aimed to explore the areas of preparedness that are under researched and to understand which areas medical graduates feel prepared or not. The audio diaries of the F1 trainees captured their experience in real-time over an extended period. They captured detail around concerns in communicating with angry/upset patients and their family or breaking bad news, as well as the wider team and hand-over. There were inconsistencies found with the review of manuscripts and the audio diaries as some literature suggest that F1 trainees are prepared for interactions. As mentioned previously, the literature generalised topics and didn’t detail specifics. Audio-dairy and interviews backed up the review findings that graduates have a lack of understanding about the clinical environment.

The audio diaries support previous research that trainees begin to feel more confident and competent as more experience is gained, however certain circumstances were highlighted as factors influencing their feelings of preparedness. These factors were things such as a new speciality, new colleagues or a lack of staff. All findings were analysed using Atlas-Ti a coding framework to map to Tomorrow’s Doctors 09.

Monrouxe et. al. (2014) delved deeper into the preparedness to practise, ensuring views from all stakeholders were included. Additionally the qualitative data captured a better understanding of the challenges affecting preparedness and interventions used. The review was a streamlined approach and has given a broad overview of up to date literature on preparedness to practise using both rapid and systematic methodology.

Monrouxe was limited to the time frame of the study therefore could not go into as much detail and rigor as necessary. The research question was very broad and the issues around preparedness are less well defined, thus making it difficult to analyse as one question.

Overall the findings from the research suggests that among healthcare education, more clinical experience is needed to order to build the confidence and preparedness of graduates for certain situations. Debates about medical graduates’ preparedness for practice has been going on for decades with suggestions that nurses lacked adequate clinical experience as far back as 1970\textsuperscript{32} It will be useful for the GCC to understand how prepared the new graduates are for chiropractic practise following an increase in registrations and graduations from the three UK institutions offering accredited chiropractic training courses.

**Transition**

An evaluation\textsuperscript{33} of student assistantships (a postgraduate first year role), introduced into medical practice for this very purpose by 2011/2012, demonstrated not only the validity of having such a role, but the value in asking students and new graduates about their feelings of preparedness in specific areas, in this case: clinical and practical skills, communication skills, teaching and learning,


\textsuperscript{33} University of Sheffield, June 2015
understanding the work environment and team working. After the assistantship, students were asked to complete the questionnaire again and comparison of the results showed statistically significant improvement in the students’ perception of their preparation for more than 87% of tasks. After the assistantship 81.2% of students felt well prepared for starting work compared with 38.9% before the assistantship and 93.9% agreed that the assistantship had improved their preparedness for starting work.
Appendix 3: Additional Charts, Tables and commentary on preparedness

These tables and charts that follow show the more detailed findings that support those that have been combined into one.

Figure 14: Employer views on the extent to which chiropractic degrees adequately prepare new registrants

<table>
<thead>
<tr>
<th>Perception</th>
<th>Strongly disagree</th>
<th>Disagree</th>
<th>Neither agree or disagree</th>
<th>Agree</th>
<th>Strongly agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Allowed them to develop good interpersonal and communication skills</td>
<td>7%</td>
<td>26%</td>
<td>23%</td>
<td>33%</td>
<td>10%</td>
</tr>
<tr>
<td>Developed their professional skills</td>
<td>4%</td>
<td>23%</td>
<td>19%</td>
<td>42%</td>
<td>12%</td>
</tr>
<tr>
<td>Prepared them to update their skills and knowledge as they progress in their career (CPD)</td>
<td>5%</td>
<td>12%</td>
<td>23%</td>
<td>46%</td>
<td>15%</td>
</tr>
<tr>
<td>Taught them how to evaluate their own competence and when to refer</td>
<td>3%</td>
<td>18%</td>
<td>24%</td>
<td>43%</td>
<td>13%</td>
</tr>
<tr>
<td>Prepared them for practice as a result of assessments conducted during the degree</td>
<td>6%</td>
<td>17%</td>
<td>25%</td>
<td>37%</td>
<td>15%</td>
</tr>
<tr>
<td>Provided sufficient supervised clinical practice</td>
<td>3%</td>
<td>15%</td>
<td>24%</td>
<td>39%</td>
<td>19%</td>
</tr>
<tr>
<td>Provided them with knowledge of addressing patient safety</td>
<td>19%</td>
<td>10%</td>
<td>59%</td>
<td>28%</td>
<td></td>
</tr>
<tr>
<td>Provided them with experience of a range of clinical conditions</td>
<td>5%</td>
<td>23%</td>
<td>25%</td>
<td>41%</td>
<td>7%</td>
</tr>
<tr>
<td>Exposed them to a variety of patient cases</td>
<td>6%</td>
<td>22%</td>
<td>20%</td>
<td>43%</td>
<td>9%</td>
</tr>
<tr>
<td>Provided the requisite clinical knowledge</td>
<td>25%</td>
<td>8%</td>
<td>58%</td>
<td>27%</td>
<td></td>
</tr>
</tbody>
</table>

Base 140: Employers Survey, 2017
Figure 15: Extent to which newly qualified practitioners agree or disagree that their degree prepared them for practice

<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly disagree</th>
<th>Disagree</th>
<th>Neither agree nor disagree</th>
<th>Agree</th>
<th>Strongly agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Allowed you to develop good interpersonal and communication skills</td>
<td>5%</td>
<td>3%</td>
<td>53%</td>
<td>37%</td>
<td></td>
</tr>
<tr>
<td>Developed your professional skills</td>
<td>8%</td>
<td>14%</td>
<td>44%</td>
<td>37%</td>
<td></td>
</tr>
<tr>
<td>Prepared you to update your skills and knowledge as you progress in your career (CPD)</td>
<td>3%</td>
<td>19%</td>
<td>49%</td>
<td>14%</td>
<td></td>
</tr>
<tr>
<td>Taught you how to evaluate your own competence and when to refer</td>
<td>5%</td>
<td>15%</td>
<td>44%</td>
<td>34%</td>
<td></td>
</tr>
<tr>
<td>Prepared you for practice as a result of assessments conducted during your degree</td>
<td>9%</td>
<td>17%</td>
<td>49%</td>
<td>22%</td>
<td></td>
</tr>
<tr>
<td>Provided sufficient supervised clinical practice</td>
<td>5%</td>
<td>9%</td>
<td>48%</td>
<td>37%</td>
<td></td>
</tr>
<tr>
<td>Provided you with knowledge of addressing patient safety</td>
<td>14%</td>
<td>10%</td>
<td>48%</td>
<td>29%</td>
<td></td>
</tr>
<tr>
<td>Provided you with experience of a range of clinical conditions</td>
<td>14%</td>
<td>10%</td>
<td>48%</td>
<td>29%</td>
<td></td>
</tr>
<tr>
<td>Exposed you to a variety of patient cases</td>
<td>9%</td>
<td>14%</td>
<td>49%</td>
<td>27%</td>
<td></td>
</tr>
<tr>
<td>Provided the requisite clinical knowledge</td>
<td>3%</td>
<td>3%</td>
<td>46%</td>
<td>46%</td>
<td></td>
</tr>
</tbody>
</table>

Base 60: newly qualified practitioner survey, 2017
Figure 16:Extent to which FY Students agree or disagree that their degree will prepare them for practice

Base 30-31 respondents, Final year students survey, 2017
Figure 17: The extent to which employers agree new registrants apply the chiropractic code

apply their chiropractic values and standards well in clinical practice (137)
- Strongly disagree: 7%
- Disagree: 12%
- Neither agree nor disagree: 31%
- Agree: 37%
- Strongly agree: 14%

are applying the GCC's Code to their everyday clinical practice (134)
- Strongly disagree: 5%
- Disagree: 18%
- Neither agree nor disagree: 59%
- Agree: 19%
- Strongly agree: 24%

are familiar with the GCC's Code (136)
- Strongly disagree: 5%
- Disagree: 10%
- Neither agree nor disagree: 59%
- Agree: 24%
- Strongly agree: 24%

show strong evidence of chiropractic values (137)
- Strongly disagree: 10%
- Disagree: 18%
- Neither agree nor disagree: 31%
- Agree: 29%
- Strongly agree: 13%

Figure 18: The extent to which newly qualified respondents agree they apply the chiropractic code

Applied your chiropractic values and standards well in clinical practice
- Strongly disagree: 0%
- Disagree: 15%
- Neither agree nor disagree: 41%
- Agree: 44%
- Strongly agree: 31%

Were applying the GCC’s Code/Code of Practice (CoP)/Standard of Proficiency (SoP) to your everyday clinical practice
- Strongly disagree: 2%
- Disagree: 44%
- Neither agree nor disagree: 42%
- Agree: 54%
- Strongly agree: 31%

Were familiar with the GCC’s Code/Code of Practice (CoP)/Standard of Proficiency (SoP)
- Strongly disagree: 2%
- Disagree: 44%
- Neither agree nor disagree: 42%
- Agree: 54%
- Strongly agree: 31%

Showed strong evidence of chiropractic values
- Strongly disagree: 0%
- Disagree: 10%
- Neither agree nor disagree: 34%
- Agree: 34%
- Strongly agree: 31%

Base: 59 newly qualified practitioner survey, 2017
Figure 19: Mechanisms employers feel are, or would be, most appropriate for supporting new registrants

- Mentoring: 91%
- Shadowing: 64%
- Working in group practice and multi-disciplinary environments: 56%
- Formal/informal ongoing support from your learning provider: 48%
- Internship: 45%
- Formal/informal ongoing support from your learning provider: 45%
- Early engagement with CPD: 41%
- No support needed: 0%
- Other: 8%

Base 137: Employers Survey, 2017

Figure 20: Mechanisms for support employers are aware that new registrants in their practice can access

- Mentoring: 66%
- Shadowing: 49%
- Working in group practice and multi-disciplinary environments: 44%
- Early engagement with CPD: 38%
- Do not currently employ/work with a new registrant: 34%
- Formal/informal ongoing support from your learning provider - specialist associations: 20%
- Formal/informal ongoing support from your learning provider - alumni: 16%
- None of the above: 1%
- Other: 2%

Base 125: Employers Survey, 2017
Employer views on additional areas in which new registrants are ‘sufficiently’ prepared

Employers supplemented their perceptions on the extent of preparedness of new registrants with comment on additional skills and knowledge. Of the 37 responses to this question, 9 volunteered a mix of positive comments (the remainder provided comment which was more negative in nature and is captured below) in support of being sufficiently prepared - ranging from agreeing that new registrants are well prepared, they have a great knowledge base, to they are safe and competent.

Eight further comments relate more specifically to communication and addressing patient needs, and communicating with other professionals at the right level.

Additionally, other areas where respondents identified new registrants are sufficiently prepared relate to having ‘soft’ skills such as handling paperwork, own personal development and understanding confidentiality.

Although this is contrary to the findings shown in Table 1, employer respondents suggest new registrants are sufficiently prepared in techniques in for example: soft tissue work and adjusting. Other responses include diagnosis, nutrition advice, lab and other testing.

Examples of such comments about new registrant’s sufficiency (negative or positive) of preparedness are given here with example comments on both sides listed below:

- “Remembering that the commonest conditions happen most often and that the exotic conditions are quite rare. The relevance of age to the diagnosis”
- “Adjusting technique is generally lacking, a variety of technique exposure is also an issue with little to no training in more than one technique.”

“They are very competent at ruling out red flags and obtaining ‘medicalised’ diagnosis”

“I feel that new practitioners are at the peak of preparation upon graduation having just completed their observation year in clinic. No other time are the ‘rules’ of practice so ingrained as upon graduation.”

“In general, new registrants are rather better equipped in many areas of clinical skills and knowledge than those who have been registered for some time. What they lack is the experience of having seen many, many patients.”

“Patient education explaining the need for ongoing care in chronic conditions and why they don’t
Respond like acute”

Employer views on additional areas in which new registrants are ‘poorly’ prepared

Communication
Out of the 140 respondents, 58% highlighted additional areas where new graduates are poorly prepared. Communication was the most common skill highlighted by respondents, with over 45% of those providing further comment suggesting new registrants need to improve their communication skills.

Examples of areas in which communication could be better are:

- showing more empathy for patients’ background and culture;
- dealing with unsatisfied patients – including cost;
- patient retention;
- patients with more than one issue and;
- emotional aspects (outside of ‘emotional interviewing’).

“New grads have particularly poor patient retention and are used to being fed an endless stream of new patients in college and so have less pressure on them to retain their list.”

“Friendliness towards patients. Understanding of the patient’s culture. Sexual transfer and counter transfer! Empathy with the patient and his family/work background.”

“Find difficulty in collating evidence from a real live human being in front of them and thus making an effective diagnosis and treatment plan. Seeing the ‘patient’ as a human being with a mortgage to pay/kids/ill health-general stresses of life. They ‘see’ the spine and not the whole person in front of them.”

“Chiropractic techniques: A suitable range of adjusting techniques seems to be lacking. Non-chiropractic techniques seem to be desired and favourable versus chiropractic techniques. There is a lack of understanding of the relationship of the spine as a whole and more emphasis on only caring for an area in pain which may only provide limited pain relief versus correcting the problem.”

A relatively large number of those employer respondents giving this additional feedback (19) identified cross-cutting and general business skills as areas in which new graduates are poorly prepared. These include:

- time management;
• applying own knowledge;
• financial and legal knowledge and organisation;
• marketing and general paperwork.

Respondents also cited a number of technical skills in which new registrants are not sufficiently prepared. These include:

• the ability to prepare treatment schedules;
• interpreting x-rays and;
• using a variety of techniques including adjusting skills.

It was acknowledged however by some employers in interviews that X-rays are either not appropriate or encouraged by one form of chiropractic and that in fact these are happening less and less anyway due to possible inherent dangers of conducting X-rays.

Lack of experience of real life chiropractic was mentioned by a small number of respondents and one stated that knowledge in areas such as orthodontics and jaw function as well as orthomolecular and chemical changes leading to symptom generation or reduction in patient outcome measures was lacking.

A small number of other comments pointed to a general lack of confidence and being fearful of making mistakes, for example in the context of demonstrating techniques such as adjusting, as well as cross-cutting skills such as communication and recommending treatment. A couple also mentioned fear in context of being scared to act.

**Newly qualified practitioner views on additional areas in which they felt ‘sufficiently’ prepared**

Nineteen respondents provided comment about other skills and knowledge areas where they felt sufficiently prepared.

Five respondents stated they felt sufficiently prepared in communication skills.

“I am always acting in the patients’ interest and putting their needs before those of the clinic, I was able to make good bonds of trust with patients”

“I felt that our clinic year helped me to try out different styles of communication and patient assessment so that I was able to start working having tried things out in a way that was tried and tested”

“How to communicate with the patient and how to communicate chiropractic”

**Newly qualified practitioner views on additional areas in which they felt ‘poorly’ prepared**
There were 41 responses when newly qualified practitioner respondents were asked if there were any other skills and knowledge in which they didn’t feel sufficiently prepared.

A common theme with 16 newly qualified practitioner respondents emerged of patient management/treatment. Included within this was the time needed per patient, treatment plans, care of types of patients (for example pregnant patients) and engaging patients at the appropriate level.

Reassessments and follow up visits, treating the body as a whole and skills such as muscle testing, exercises and stretches and condition based care were added to this list.

“I felt that I would have benefitted from better preparation for the treatment of common injuries rather than focusing so much on the unusual and rare cases which we would just refer out anyway.”

“I have found practical application to be the issue. How much treatment do you do in session 1-6 in order to prevent the patient feeling too sore, which adjustments are more effective for which conditions/body types. I would say much time was spend on being safe and not enough on being an effective chiropractor in terms of hands on treatment - I’ve learnt that from previous employers since graduating.”

“Timing - this is grossly different to the outside world and seeing a full flow routine by one of the tutors would have been extremely helpful to see how it can be done smoothly and in time constraints”

“Limited knowledge of how to best to decide on treatment numbers and frequency needed and knowing healing times. How to handle very acute patients”

Other skills and knowledge mentioned are:

- ‘Report of findings’ (4 respondents). They complained that this wasn’t taught at college, and as a result they felt ill-prepared when delivering a report of findings in a way that meets patient expectations. They acknowledge that this comes with experience later, but several commented this was a tick box exercise at university and wasn’t very realistic.

- ‘Explaining Chiropractic’ (3 respondents): They expressed a feeling of inadequacy when describing a general understanding of philosophies, and how to communicate what the profession of chiropractic is about.

- Use of techniques (3 respondents) and selecting the appropriate one or combination. Techniques mentioned in this context include rehabilitation, soft tissue work, adjustments, mobilisations and lumbar roll.

“I don’t feel I left university with a good understanding of how to select techniques appropriately for a range of conditions and patients - this was an area of unconscious incompetency when I graduated.”
Appendix 4: Questionnaires used for the surveys

GCC Survey of Chiropractic Employers and Colleagues
Preparedness to practice

Thank you for looking at this survey.

This survey is being run on behalf of the General Chiropractic Council (GCC), the regulator of the chiropractic profession in the UK, by Pye Tait Consulting.

The overall purpose of the GCC is to protect the public and their duty is to develop and regulate the profession of chiropractic. They do this by setting standards of education for individuals training to become chiropractors, and by setting standards of professional conduct and practice for chiropractors.

The purpose of this short survey is to gather the views of registered chiropractors on their perceptions of new registrants’ readiness for practice (i.e. the extent to which they are able to work safely, effectively and unsupervised).

By ‘new registrant’ we mean practitioners who have registered with the GCC since 2015 and therefore have been practicing as chiropractors for around 2 or so years.

It is standard practice to gather such views in healthcare and it is timely that the GCC conducts this research. They would be very pleased to gain your views. These will be set alongside views from final year students and those who have recently qualified as to how well prepared they felt on joining the profession.

The research is being conducted by Pye Tait Consulting. All information you provide will be treated in the strictest of confidence and in compliance with the Market Research Society (MRS) Code of Conduct. Responses will be aggregated and NOT linked to any individual or practice.

Submitting a completed questionnaire will be considered to imply consent for the GCC and Pye Tait to use the data in their research.

All data submitted will be anonymous. Therefore, once you have submitted your response, it will not be possible to retract your data from the study.
The survey will be open until 19th May 2017. The survey will take approximately 10 - 15 minutes to complete. As you progress, you will be automatically directed to the relevant questions, therefore not all questions may appear.

Any enquiries about the purpose of this survey should be directed to Anouska Annan at the GCC via education@gcc-uk.org or the detail of the survey or its submission to Clare Vokes at Pye Tait Consulting, via c.vokes@pyetait.com (telephone 01423 509433).

About you

Q1  How many years have you worked as a qualified chiropractor?
    ❑ 5 or fewer
    ❑ 6-10
    ❑ 11-15
    ❑ 16-20
    ❑ 21-25
    ❑ 26-30
    ❑ 31+

Q2  In which year did you first register with the GCC?
    ____________

Q3  Has your registration been continuous from this date?
    ❑ Yes
    ❑ No

Q4  If 'no', for how long were you not registered before this date?
    ____________

Q5  Are you...
    ❑ an employer/lead practitioner in a group practice
Q6 How many chiropractors work within your practice (including yourself)?
Full-time
Part-time
Total staff

Q7 In which nation/region do you currently work as a chiropractor?
- East of England
- East Midlands
- London
- North East
- North West
- South East
- South West
- West Midlands
- Yorkshire and the Humber
- Northern Ireland
- Wales
- Scotland

New registrants

Q8 Do you currently employ/work with a new registrant (i.e. registered since 2015)?
- Yes
- No

Q9 If 'yes', in which year did your new registrant first register? We are particularly interested in those who have registered since 2015 (if you are unsure, please leave blank)
Q10 If you employ/work with more than one new registrant, please specify how many and from which chiropractic institutions they graduated (please enter the number of new registrants alongside the name of the institution below). If none please leave blank.

Anglo-European College of Chiropractic (AECC) ___________

The McTimoney College of Chiropractic (MCC) ___________

Welsh Institute of Chiropractic ___________

Other ___________

If 'other' please specify

________________________________________________________

Q11 Please specify how many new registrants you employ in each of the following age groups. If none please leave blank.

20-34 ___________

35-49 ___________

50 and over ___________

Clinical skills and knowledge

Q12 On a scale of 1 to 10, generally, how prepared would you say new registrants are in the following areas of clinical skills and knowledge (where ‘1’ is ‘totally unprepared’ and ‘10’ is ‘fully prepared’)

Taking a patient’s history ___

Completing a physical examination of a patient ___

Selecting the appropriate diagnostic investigation ___
Interpreting the diagnosis
Developing and documenting a plan of care
Applying therapeutic psychomotor and condition management
Evaluating scientific research methods in the context of clinical practice
Identifying appropriate evidence-based care
Knowing when and how to make referrals
How to obtain consent from a patient
Being able to assess a patient’s capacity to make a decision
Being able to describe the spectrum of health needs of a patient
Legislation relating to chiropractic care (e.g. imaging)
How to maintain and protect patient information

Q13 Are there other clinical skills and knowledge not mentioned above in which you feel new registrants are sufficiently prepared?
_____________________________________________________________________________________________________________________________
_____________________________________________________________________________________________________________________________

Q14 Are there other clinical skills and knowledge not mentioned above in which you feel new registrants are poorly prepared?
_____________________________________________________________________________________________________________________________
_____________________________________________________________________________________________________________________________

Q15 Where you have chosen '5' or less in an area can you explain why you chose that rating?
<table>
<thead>
<tr>
<th>Q16</th>
<th>To what extent do you agree that new registrants' degrees have...</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Provided the requisite clinical knowledge</td>
</tr>
<tr>
<td></td>
<td>Exposed them to a variety of patient cases</td>
</tr>
<tr>
<td></td>
<td>Provided them with experience of a range of clinical conditions</td>
</tr>
<tr>
<td></td>
<td>Provided them with knowledge of addressing patient safety</td>
</tr>
<tr>
<td></td>
<td>Provided sufficient supervised clinical practice</td>
</tr>
<tr>
<td></td>
<td>Prepared them for practice as a result of assessments conducted during the degree</td>
</tr>
<tr>
<td></td>
<td>Taught them how to evaluate their own competence and when to refer</td>
</tr>
<tr>
<td></td>
<td>Prepared them to update their skills and knowledge as they progress in their career (CPD)</td>
</tr>
<tr>
<td></td>
<td>Developed their professional skills</td>
</tr>
<tr>
<td></td>
<td>Allowed them to develop good interpersonal and communication skills</td>
</tr>
</tbody>
</table>

Q17 Where you have chosen 'strongly disagree' for any of the above please can you explain why you chose that rating?

Q18 What levels of confidence do you have in new registrants in the following areas (where '1' is 'no confidence' and '5' is 'high confidence')
Applying practical hands-on treatment (for example, adjustments and manipulation etc.) ___

Applying clinical skills (history taking, diagnosis and all that follows with treatment and care of patient) ___

Communicating with other colleagues in healthcare ___

Communicating with patients ___

Understanding the work environment ___

Team working ___

Q19 Are there any areas in which you feel new registrants need further development to prepare them for practice?

_____________________________________________________________________________________________________________________________

____________________________________________________________________________________________________

_____________________________________________________________________________________________________________

Q20 To what extent do you agree that new registrants...

<table>
<thead>
<tr>
<th>Strongly disagree</th>
<th>Disagree</th>
<th>Neither agree nor disagree</th>
<th>Agree</th>
<th>Strongly agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>show strong evidence of chiropractic values</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>are familiar with the GCC’s Code</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>are applying the GCC’s Code to their everyday clinical practice</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>apply their chiropractic values and standards well in clinical practice</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
</tbody>
</table>

Q21 Overall, how well-prepared for clinical practice do you feel new registrants are?
Supporting new registrants

Q22 Which of the following mechanisms, if any, do you feel are, or would be, most appropriate/effective for supporting new registrants? (select all that apply)
- Mentoring
- Shadowing
- Internship
- Early engagement with CPD
- Working in group practice and multi-disciplinary environments
- Formal/informal ongoing support from your learning provider - alumni
- Formal/informal ongoing support from your learning provider - specialist associations
- No support needed
- Other

If 'other' (please specify)

Q23 To the best of your knowledge, which of the following forms of support do the new registrant/s in your practice access? (select all that apply)
- Mentoring
- Shadowing
- Early engagement with CPD
- Working in group practice and multi-disciplinary environments
- Formal/informal ongoing support from your learning provider - alumni
- Formal/informal ongoing support from your learning provider - specialist associations
- None of the above
- Do not currently employ/work with a new registrant
- Other
If 'other' (please specify)

___________________________________________________________________________________________________

Q24 What supervision, mentorship, or continuing professional development are you aware of that is available to new registrants in:

your local area

___________________________________________________________________________________________________

your region

___________________________________________________________________________________________________

Q25 Do you personally provide supervision or mentorship for any of the new registrants in your practice (or any new registrants that you have employed in the past)?

☐ Yes

☐ No

Q26 Do you personally provide supervision or mentorship for any other new registrants?

☐ Yes

☐ No

Business acumen

Q27 To what extent do you agree with the following statements…

<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly disagree</th>
<th>Disagree</th>
<th>Neither agree nor disagree</th>
<th>Agree</th>
<th>Strongly agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>New registrants I have worked with are good at patient care</td>
<td>❑</td>
<td>❑</td>
<td>❑</td>
<td>❑</td>
<td>❑</td>
</tr>
<tr>
<td>New registrants I have worked with are good at managing budgets</td>
<td>❑</td>
<td>❑</td>
<td>❑</td>
<td>❑</td>
<td>❑</td>
</tr>
</tbody>
</table>
New registrants I have worked with are good at strategic and ongoing developments

New registrants I have worked with have good marketplace awareness

New registrants I have worked with are good at business development

Q28 To what extent do new registrants understand the interface between clinical practice, patient care and business growth?
- Very well
- Sufficiently
- Not well enough

Q29 What core business responsibilities if any do you assign new registrants?
____________________
_____________________________________________________________________________________________________________________
_____________________________________________________________________________________________________________________________
_____________________________________________________________________________________________________________________________

Q30 What area of business/entrepreneurship are new registrants strongest in?
_____________________________________________________________________________________________________________________________
_____________________________________________________________________________________________________________________________

Q31 What area of business/entrepreneurship are new registrants least good at?
_____________________________________________________________________________________________________________________________
_____________________________________________________________________________________________________________________________

Q32 Overall, what do you think being 'prepared for practice' involves?
_____________________________________________________________________________________________________________________________
_____________________________________________________________________________________________________________________________
Q33 Finally, do you have any comments to supplement the questions above, or additional comments about preparedness for practice?

______________________________________________________________________________________________

______________________________________________________________________________________________

Q34 Would you be willing to take part in any follow-up research (e.g. a telephone interview to gain further detail on your response)?

☐ Yes
☐ No

Q35 If yes, please provide your name and contact number here:

Name: ________________________________________________________________
Phone number: ________________________________ ______________________________
Email address: __________________________________________________________

GCC Survey of Newly Qualified Chiropractors
Preparedness to practise

Thank you for looking at this survey.

This survey is being run on behalf of the General Chiropractic Council (GCC), the regulator of the chiropractic profession in the UK, by Pye Tait Consulting.

The overall purpose of the GCC is to protect the public, and their duty is to develop and regulate the profession of chiropractic. They do this by setting standards of education for individuals training to become chiropractors, and by setting standards of professional conduct and practice for chiropractors.
The purpose of this short survey is to gather the views of newly qualified practitioners on their perceptions of how well-prepared they felt on joining the profession (i.e. the extent to which they were able to work safely, effectively and unsupervised).

By ‘newly qualified practitioner’ we mean those who have been practising as chiropractors for less than five years.

It is standard practice to gather such views in healthcare and it is timely that the GCC is conducting this research. They would be very pleased to gain your views. These will be set alongside views from final year students on their perceptions of their readiness for becoming practising chiropractors and comparing experiences of chiropractors who have been practising for some years.

The research is being conducted by Pye Tait Consulting. All information you provide will be treated in the strictest of confidence and in compliance with the Market Research Society (MRS) Code of Conduct. Responses will be aggregated and NOT linked to any individual or practice.

Submitting a completed questionnaire will be considered to imply consent for the GCC and Pye Tait to use the data in their research.

All data submitted will be anonymous. Therefore, once you have submitted your response, it will not be possible to retract your data from the study.

The survey will be open until 14th July 2017. The survey will take approximately 10 - 15 minutes to complete. As you progress, you will be automatically directed to the relevant questions, therefore not all questions may appear.

Any enquiries about the purpose of this survey should be directed to Anouska Annan at the GCC via education@gcc-uk.org or the detail of the survey or its submission to Clare Vokes at Pye Tait Consulting, via c.vokes@pyetait.com (telephone 01423 509433).

1. About you

Q1 In which year did you first register with the General Chiropractic Council?

☐ 2016
☐ 2015
☐ 2014
☐ 2013
☐ 2012
Q2  In which year did you graduate from a chiropractic institution?
    - 2016
    - 2015
    - 2014
    - 2013
    - 2012
    - Prior to 2012

Q3  From which institution did you graduate?
    - Anglo-European College of Chiropractic (AECC)
    - The McTimoney College of Chiropractic
    - Welsh Institute of Chiropractic
    - Other

    'Other', please specify
_______________________________________________________________________________________________________________________________

Q4  In which age group are you
    - 20-34
    - 35-49
    - 50 and over

Q5  Are you male or female?
    - Male
    - Female

Q6  Are you... (please tick all that apply)
    - An employer/lead practitioner in a group practice
    - Self-employed in a group practice
    - An associate practitioner/colleague in a group practice
    - Self-employed in your own single-person practice
    - Self-employed as a locum
Q7 How many chiropractors work within your practice (including yourself)?
   Full time ________________
   Part time ________________

Q8 In which nation/region do you currently work as a chiropractor?
   - East of England
   - East Midlands
   - London
   - North East
   - North West
   - South East
   - South West
   - West Midlands
   - Yorkshire and the Humber
   - Northern Ireland
   - Wales
   - Scotland

2. Knowledge and skills

Q9 On a scale of 1 to 10, generally, when you first started practising, how prepared would you say you were in the following areas of clinical skills and knowledge (where ‘1’ is ‘totally unprepared’ and ‘10’ is ‘fully prepared’)
   - Taking a patient’s history ___
   - Completing a physical examination of a patient ___
   - Selecting the appropriate diagnostic investigation ___
   - Interpreting the diagnosis ___
   - Developing and documenting a plan of care ___
Applying therapeutic psychomotor and condition management ___
Evaluating scientific research methods in the context of clinical practice ___
Identifying appropriate evidence-based care ___
Knowing when and how to make referrals ___
How to obtain consent from a patient ___
Being able to assess a patient’s capacity to make a decision ___
Being able to describe the spectrum of health needs of a patient ___
Legislation relating to chiropractic care (e.g. imaging) ___
How to maintain and protect patient information ___

Q10 Where you have chosen '5' or less in an area, please explain why you chose that rating.
_____________________________________________________________________________________________________________________________
_________________________________________________________________________________________________________________________

Q11 Are there other clinical skills and knowledge not mentioned above in which you feel you were sufficiently prepared?
_____________________________________________________________________________________________________________________________

Q12 Are there other clinical skills and knowledge not mentioned above in which you feel you were poorly prepared?
_____________________________________________________________________________________________________________________________
Q13 Thinking about practising in the profession, do you think your degree… (choose the statement that most applies to you)

<table>
<thead>
<tr>
<th>Provided the requisite clinical knowledge</th>
<th>Strongly disagree</th>
<th>Disagree</th>
<th>Neither agree nor disagree</th>
<th>Agree</th>
<th>Strongly agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exposed you to a variety of patient cases</td>
<td></td>
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<tr>
<td>Provided you with experience of a range of clinical conditions</td>
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<tr>
<td>Provided you with knowledge of addressing patient safety</td>
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<tr>
<td>Provided sufficient supervised clinical practice</td>
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<tr>
<td>Prepared you for practice as a result of assessments conducted during your degree</td>
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<tr>
<td>Taught you how to evaluate your own competence and when to refer</td>
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</tr>
<tr>
<td>Prepared you to update your skills and knowledge as you progress in your career (CPD)</td>
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<tr>
<td>Developed your professional skills</td>
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<tr>
<td>Allowed you to develop good interpersonal and communication skills</td>
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</tr>
</tbody>
</table>

Q14 Where you have chosen ‘strongly disagree’ for any of the above, please can you explain why you chose that rating?
____________________________________________________________________________________________________________________________
____________________________________________________________________________________________________________________________
____________________________________________________________________________________________________________________________
____________________________________________________________________________________________________________________________
____________________________________________________________________________________________________________________________
Q15 What levels of confidence did you have in the following areas when you first started practising? (where ‘1’ is ‘no confidence’ and ‘5’ is ‘high confidence’)

Applying practical hands-on treatment (for example, adjustments and manipulation etc.) ___
Applying clinical skills (history taking, diagnosis and all that follows with treatment and care of a patient) ___
Communicating with other colleagues in healthcare ___
Communicating with patients ___
Understanding the work environment ___
Team working ___
Running an independent practice ___

Q16 Are there any areas in which you feel you needed further development?
_____________________________________________________________________________________________________________________________
_____________________________________________________________________________________________________________________________
_____________________________________________________________________________________________________________________________

Q17 To what extent do you agree that, when you first started practising, you...

<table>
<thead>
<tr>
<th></th>
<th>Strongly disagree</th>
<th>Disagree</th>
<th>Neither agree nor disagree</th>
<th>Agree</th>
<th>Strongly agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>showed strong evidence of chiropractic values</td>
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<tr>
<td>were familiar with the GCC’s Code/Code of Practice (CoP)/Standard of Proficiency (SoP)</td>
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<tr>
<td>were applying the GCC’s Code/Code of Practice (CoP)/Standard of Proficiency (SoP) to your everyday clinical practice</td>
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<td></td>
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<tr>
<td>applied your chiropractic values and standards well in clinical practice</td>
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</tbody>
</table>

Q18 Overall, how well-prepared for clinical practice do you feel you were when you first started practising?
Q19  What would have helped you reduce the feeling of not being well-enough prepared?

____________________________________________________________________________________________________________________________

_________________________________________________________________________________________

_____________________________________________________________________________________________________________

3. Supporting and continuing professional development

Q20  Which of the following support mechanisms, if any, have you accessed since you started practising? (select all that apply)

- Mentoring
- Shadowing
- Internship
- Early engagement with CPD
- Working in group practice and multi-disciplinary environments
- Formal/informal ongoing support from your learning provider - alumni
- Formal/informal ongoing support from your learning provider - specialist associations
- No support needed
- Other

If 'other', please specify

____________________________________________________________________________________________________________________

Q21  Of the types of support you have accessed how would you rate them? (on a scale of 1 to 10, where '1' is 'extremely unhelpful' and '10' is 'very helpful')

Mentoring

Shadowing
Internship

Early engagement with CPD

Working in group practice and multi-disciplinary environments

Formal/informal ongoing support from your learning provider - alumni

Formal/informal ongoing support from your learning provider - specialist associations

Other

Q22 Where you have chosen '5' or less in an area, please explain why you chose that rating

___________________________________________________________________________________________________________________

___________________________________________________________________________________________________________________

Q23 What supervision, mentorship, or continuing professional development are you aware of that is available to new registrants in:

Your local area

___________________________________________________________________________________________________________________

___________________________________________________________________________________________________________________

Your region

___________________________________________________________________________________________________________________

___________________________________________________________________________________________________________________

Q24 What, if any, core business responsibilities have you been assigned by your employer since you started practising?

___________________________________________________________________________________________________________________

___________________________________________________________________________________________________________________

Q25 What area of business/entrepreneurship are you strongest in?
Q26  What area of business/entrepreneurship are you least good at?
______________________________________________________________

Q27  In general, how well do you feel that your experience on your degree course prepared you for your first job in chiropractic - where '1' is 'very poorly prepared' and '10' is 'very well prepared'?
_____  

Q28  Overall, what do you think being ‘prepared for practice’ involves?
______________________________________________________________

Q29  Finally, do you have any comments to supplement the questions above, or additional comments about your feelings of preparedness on graduation?
______________________________________________________________

Q30  Would you be interested and willing to participate in this research later in the year if we wanted to ask you further questions or invite you to a focus group?

☐  Yes
☐  No

Q31  If yes, please provide your name and contact number here:
Name:  
______________________________________________________________
GCC Survey of Final Year Chiropractic Students
Preparedness to practice

Thank you for looking at this survey.

This survey is being run on behalf of the General Chiropractic Council (GCC), the regulator of the chiropractic profession in the UK, by Pye Tait Consulting.

The overall purpose of the GCC is to protect the public and their duty is to develop and regulate the profession of chiropractic. They do this by setting standards of education for individuals training to become chiropractors, and by setting standards of professional conduct and practice for chiropractors.

The purpose of this short survey is to gather the views of final year students on chiropractic degree programmes on their perceptions of their readiness for becoming practising chiropractors on successful completion of their degree.

It is standard practice to gather such views in healthcare and it is timely that the GCC conducts this research. They would be very pleased to gain your views. These will be set alongside views from those who have recently qualified as to how well prepared they felt on joining the profession and comparing experiences of chiropractors who have been practising for some years.
The research is being conducted by Pye Tait Consulting. All information you provide will be treated in the strictest of confidence and in compliance with the Market Research Society (MRS) Code of Conduct. Responses will be aggregated and NOT linked to any individual or institution.

Submitting a completed questionnaire will be considered to imply consent for the GCC and Pye Tait to use the data in their research.

All data submitted will be anonymous. Therefore, once you have submitted your response, it will not be possible to retract your data from the study.

The survey will be open until 31st May 2017. The survey will take between 5 to 10 minutes to complete. As you progress, you will be automatically directed to the relevant questions, therefore not all questions may appear.

Any enquiries about the purpose of this survey should be directed to Anouska Annan at the GCC via education@gcc-uk.org or the detail of the survey or its submission to Clare Vokes at Pye Tait Consulting, via c.vokes@pyetait.com (telephone 01423 509433).

About you

Q1 What is the title of your current degree programme?
________________________________________________________________________________________________________

Q2 For verification purposes please pick one institution at which you are currently studying from the list below:
  - Anglo-European College of Chiropractic (AECC)
  - The McTimoney College of Chiropractic (MCC)
  - Welsh Institute of Chiropractic
  - Other

  If 'Other' please specify:
________________________________________________________________________________________________________

Q3 In which year did you begin your current degree programme?
_______________

Q4 When did you enter your final clinical year?
Month
Year

Q5 Have you had to retake a year of your course? If yes, please insert the year number (1, 2 etc.) or leave blank if not appropriate.

Q6 How old are you?

Q7 Are you male or female?
  ☐ Male
  ☐ Female

Q8 Have you worked in a healthcare setting prior to, or during, your degree programme (not including the clinical experience part of your degree)? Please leave blank if not.
  ☐ Prior to
  ☐ During

Clinical skills and knowledge

Q9 On a scale of 1 to 10, how comfortable and prepared do you currently feel with the following clinical skills and knowledge (where '1' is 'extremely uncomfortable and unprepared' and '10' is 'fully comfortable and prepared')?

  Taking a patient's history
  Completing a physical examination of a patient
  Selecting the appropriate diagnostic investigation
  Interpreting the diagnosis
  Developing and documenting a plan of care
<table>
<thead>
<tr>
<th>Question</th>
<th>Rating Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Applying therapeutic psychomotor and condition management</td>
<td>___</td>
</tr>
<tr>
<td>Evaluating scientific research methods in the context of clinical practice</td>
<td>___</td>
</tr>
<tr>
<td>Identifying appropriate evidence-based care</td>
<td>___</td>
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<td>Knowing when and how to make referrals</td>
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<td>___</td>
</tr>
<tr>
<td>Legislation relating to chiropractic care (e.g. imaging)</td>
<td>___</td>
</tr>
<tr>
<td>How to maintain and protect patient information</td>
<td>___</td>
</tr>
</tbody>
</table>

Q10 Are there other clinical skills and knowledge not mentioned above with which you feel fully comfortable and prepared?  
______________________________________________________________________________________________________________________________

Q11 Are there other clinical skills and knowledge not mentioned above with which you feel uncomfortable and unprepared?  
______________________________________________________________________________________________________________________________

Q12 Where you have chosen '5' or less in an area can you explain why you chose that rating?  
______________________________________________________________________________________________________________________________

Q13 Thinking ahead to practising in the profession, do you think your degree will have Provided the requisite clinical knowledge  

<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly disagree</th>
<th>Disagree</th>
<th>Neither agree or disagree</th>
<th>Agree</th>
<th>Strongly agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Provided the requisite clinical knowledge</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Exposed you to a variety of patient cases</td>
<td>☐</td>
<td>☐</td>
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</table>
Provided you with experience of a range of clinical conditions

Provided you with knowledge of addressing patient safety

Provided sufficient supervised clinical practice

Prepared you for practice as a result of assessments conducted during the degree

Taught you how to evaluate your own competence and when to refer

Prepared you to update your skills and knowledge as you progress in your career (CPD)

Developed your professional skills

Allowed you to develop good interpersonal and communication skills

Q14 Where you have chosen 'strongly disagree' for any of the above (Q13) please can you explain why you chose that rating?

Q15 What level of confidence do you anticipate having in your first job in the following areas (where '1' is 'no confidence' and '5' is 'high confidence')?

Applying practical hands-on treatment (for example, adjustments and manipulation etc.)

Applying clinical skills (history taking, diagnosis and all that follows with treatment and care of a patient)
Communicating with other colleagues in healthcare

Communicating with patients

Understanding the work environment

Team working

Running an independent practice

Q16 Are there any areas in which you feel you need further development to prepare you for practice?

Support and continuing professional development

Q17 Thinking ahead to being a practising chiropractor, what support, if any, do you feel you would benefit from? Tick all that apply

- Mentoring
- Shadowing
- Internship
- Early engagement with CPD
- Working in group practice and multi-disciplinary environments
- Formal/informal ongoing support from your learning provider - alumni
- Formal/informal ongoing support from your learning provider - specialist associations
- No support needed
- Other

Other (please specify)
Q18  In general, how well do you feel that your experience on your degree course will prepare you for your first job in chiropractic (where '1' is 'very poorly prepared' and '10' is 'very well prepared')?

___

Q19  Overall, what do you think 'prepared for practice' involves?

_____________________________________________________________________________________________________________________________

Q20  Finally, do you have any comments to supplement the questions above, or additional comments about your feelings of preparedness prior to graduation?

_____________________________________________________________________________________________________________________________

Q21  Would you be interested and willing to participate in this research later in the year if we wanted to ask you further questions or invite you to a focus group?

☐  Yes
☐  No

Q22  If yes, please provide your name and contact number here:

Name:  ________________________________________________________________

Phone number:  _________________________________________________________

Email address:  _________________________________________________________