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Development of an Assessment Process for Overseas Osteopaths to Practice in Australasia.

Report for ANZOC* and OCNZ**

*Australia and New Zealand Osteopathic Council
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Footnotes and referencing:

This document uses numbers for footnotes, and authors / dates for referencing.

Summary

This report describes the development of a process to assess overseas-trained osteopaths for suitability for practice in an Australasian Jurisdiction.

The context of this work is the newly established national Health Practitioner Regulation system within Australia[1], and the formation of the Australian and New Zealand Osteopathic Council (ANZOC). ANZOC is a peak body currently awarded Accreditation Authority status by the Australian Health Workforce Ministerial Council. Alongside the national Regulatory Authority for Osteopaths in New Zealand, the Osteopathic Council of New Zealand (OCNZ), ANZOC was seeking to develop a nationally applicable assessment process for Osteopaths wishing to practice in Australia or New Zealand whose qualifications require that their skills are assessed prior to their application to register either with the Osteopathy Board of Australia (OBA) or the OCNZ. ANZOC has a duty to explore and develop best practice initiatives for the assessment of overseas trained osteopaths, and an aim to create policies in accordance with the Trans Tasman Mutual Recognition Agreement (TTMRA) between Australia and New Zealand,.

This report focuses on that outcome: how osteopaths with a variety of qualifications may be assessed for their suitability to practice in either Australia or New Zealand. This work is based on a preliminary project funded by the OCNZ which is described within this report (project managed by Caroline Stone), and on a project to further that work funded by ANZOC by a grant from the Department of Health and Ageing, Federal Government of Australia. The project is managed by Caroline Stone and is to design and help implement an assessment process for osteopaths wishing to work in Australia who do not hold certain Australian qualifications, or are not currently registered with the Osteopathy Board of Australia (OBA) or the Osteopathic Council of New Zealand (OCNZ). This latter project forms the main body of this report.

The assessment process described here uses the Capabilities for Osteopathic Practice, developed in 2009 through a project at the University of Technology, Sydney (UTS), undertaken by Prof Paul Hager, Prof David Boud and Caroline Stone[2], and funded by the New South Wales Osteopaths Registration Board. These Capabilities for Practice[3] have been adopted by a number of Regulatory Authorities for osteopaths in Australia[4] prior to the commencement of the AHPRA national scheme and the formation of the OBA. The OBA is currently in the process of considering the Capabilities for Practice document for adoption. The Osteopathic Council of New Zealand is currently gazetting the Capabilities for adoption in 2011.

[1] The Australian Health Practitioner Regulation Agency (AHPRA) is the body which administers the national regulation of health professions in Australia for nine boards, including the one regulating osteopaths - the Osteopathy Board of Australia.
[2] This latter project was proposed and subsequently project managed by Caroline Stone.
[3] This UTS Report and the Capabilities Document can be found at http://www.osteopathiccouncil.org.nz/
[4] The Chiropractors and Osteopaths Board of Tasmania, the New South Wales Osteopaths Registration Board, the Queensland Osteopaths Registration Board

Accordingly these Capabilities represent an accepted standard for practice for osteopathy in Australia and New Zealand and are a sound basis for the development of a high stakes assessment process such as described in this report.

Background

The Osteopathic profession globally is increasingly confronting the challenge of assessing practitioners who wish to migrate and work in different geographical and regulatory jurisdictions to their place of training and current workplace experience, a factor not confined to osteopathy (J. J. Norcini & Mazmanian, 2005). As healthcare practices change over time placing new stressors on assessment of competence mechanism (Dauphinee & Norcini, 1999), and as national regulatory frameworks become established in law, codes of practice are established, requirements for continuous professional development are identified and minimum levels of qualification for entry into the profession - and how to assess these (Fletcher, 2008; London, 2008) - are considered, the question of comparability or equivalence between jurisdictions comes to the fore. Each regulatory authority must therefore decide upon an approach to the assessment of overseas osteopaths wishing to gain entry into that region's workforce. Cultural change may be required to bring thinking about competency assessment into a form that suits this purpose.

Assessment of overseas osteopaths for entry into the profession is arguably more closely related to ongoing assessment and work based reflective practices than high stakes examinations conducted at the end of entry level programmes and require differing assessment strategies (Hays et al., 2002). Assessment of overseas applicants 'stands alone' from institutional needs and must necessarily engage with professionals already working within the field with a much greater range of experiences, capabilities and professional approaches and values. The migration and global mobility of healthcare workers including osteopaths creates a unique set of challenges to the question of how assessment is best organised to capture the nature of a person's professional capability and suitability to work within any given regulatory environment, and how best to guide them for future development to either maintain their regulatory status or to improve and mature their current skills and knowledge to meet required standards for entry.

Assessment design principles

There are many principles of assessment design which have been considered in the development of the process described in this report (Albino et al., 2008; Kaslow, Rubin, Bebeau, et al., 2007; C. P. van der Vleuten, Schuwirth, Scheele, Driessen, & Hodges, 2010; Wass, Van der Vleuten, Shatzer, & Jones, 2001). There are some key principles which are worthy of particular note by this report and which are embedded in the developed process. These are that the process should:

- Provide directions for future learning and protection of the public (Epstein, 2007)
- Utilise more than one tool for assessing those capabilities that require professional judgement of attainment of standards, and be related to the assessment of performance (Hamilton et al., 2007)
- Use assessments that reflect real practice and it's situated nature (Rethans et al., 2002) and relates to a broad perspective of practice (Kemmis, 2005)
- Be appropriate and fair for all applicants from novice graduates to experienced practitioners from a variety of backgrounds – it being recognised that assessment of performance is different to that of general competence assessment (Hays, et al., 2002)

- Be relatable to systems developed to consider such elements as recertification, performance review, return to practice, fitness to practice review and continuous professional education and lifelong learning which are all necessary components of professional regulation.

This report will also discuss the issues of standards, setting performance criteria, assessor training and quality assurance, and the use of work place based assessment, mentoring and supervision of practice, which are necessary to implement the assessment processes described here.

Key components of the process

Review of existing assessment processes revealed only a small pool of assessment tools being utilised and these were recognised as being insufficient for the complex task of evaluating capability for practice. Tools such as the long case and traditional multiple choice exams were considered outdated and unsuited to purpose in this context. In their stead a wider range of tools were selected, including the mini CEX exam (J. J. Norcini, Blank, Duffy, & Fortna, 2003) and written components such as key features papers (Farmer & Hinchy, 2005). These components are not commonly utilised within current high stakes examinations in osteopathy, but have greater validity and reliability than other methods and were deemed more suitable to purpose than current approaches. The use of a broad set of assessment tools is necessary to enable a broad range of capabilities to be assessed, thus ensuring a more effective evaluation of an individual's capability towards practice. Reasons for inclusion and exclusion will be discussed in the body of the report.

Alignment of the assessment process to the previously developed Capabilities for Osteopathic Practice ensured that the assessment model described here is applicable to all aspects of practice. The capabilities themselves were designed within a certain understanding of what Practice actually is, being based on models introduced by Schwant (2005) and Kemmis (2005), amongst others (which will be discussed further below).

These Capabilities set the framework for the assessment, in the development of appropriate performance indicators and ratings and in ensuring that the tools are therefore capable of assessing Practice in its wider definitions (now required in modern and future oriented healthcare provision and regulatory frameworks). Aligning the assessment criteria with the Capabilities required for practice, not merely by mapping the two but critically analyzing the implications for performance and its assessment, was deemed critical to the validity of the tools chosen. This understanding of the capabilities, and of the broader perspective of practice referred to above lead to a deeper understanding that the range of assessment tools previously typically chosen in osteopathic high stakes examinations would not lead to a wide enough appraisal of the capabilities, and this reinforced the finding that there needs to be a shift in culture regarding high stakes assessment tool choice in osteopathy.

The Capabilities were also designed to include aspects of self assessment, self regulation, lifelong learning principles, learning needs reflection and critical self appraisal (Colthart et al., 2008) to help manage ongoing clinical complexity, changing evidence base and future clinical uncertainty and therefore improve patient care. These are highly important components within the Capabilities model to help maintain an appropriately skilled and capable workforce ***over time***.

The principles of learning are very important within the capabilities and the alignment of the overseas assessment process to other (non-credentialing) reviews of practice performance assessment - see below – has been informative, as these are driven by the association between assessment and learning . A constructivist and socio-cultural approach to learning is considered best to promote clinical expertise, given that learning is both culturally situated and individually constructed from a variety of different sources (Field, 2004). Accordingly some of the tools chosen are

specifically identified to consider these types of capabilities which are beyond those commonly assessed in straight forward competency based high stakes examinations.

This is a key feature of the assessment process and is a major development in assessment design in osteopathic credentialing assessments.

Competent Authority pathway and work place based assessment

Assessment must therefore guide learning, and this is achieved in a number of ways through supervision, feedback (Lockyer et al., 2011; Veloski, Boex, Grasberger, Evans, & Wolfson, 2006), candidate preparation, and mentoring in some parts of the process. As indicated above the New Zealand and Australian versions differ in 2 ways; one is that New Zealand has a formal workplace based assessment phase under modified registration for ALL candidates, and this is called the standard pathway). The second is the inclusion of an important component in the New Zealand version for some candidates which is the adoption of a 'Competent Authority' Model (which will be discussed later) which allows suitable candidates to enter into the New Zealand workforce with no initial screening (beyond normal migration checks), but to enter a pathway of work place based assessment for a period of 12 months. This mirrors the work place based phase of the standard pathway, but does not require the pre-work place based assessment (written and clinical components) to be undertaken. This is deemed fairer to candidates whose qualifications are deemed equivalent to those in New Zealand, through the Competent Authority pathway process, and also to aid the New Zealand workforce by not placing unnecessary hurdles to migration.

Mentoring is also an important part of the New Zealand work place based assessment phase, which helps to manage candidates' progress, and aids borderline candidates receive appropriate feedback so they can up skill and adapt their practice according to need, on a personalized basis. Currently the Competent Authority Model is not being employed in Australia, and the work place phase has essentially been moved earlier, and is now undertaken in an adapted portfolio exercise prior to undergoing any clinical exam. There is no mentoring in the portfolio exercise, but there is supervisory contact which will ensure feedback can be given to the candidate to ensure appropriate understanding of the process and of the standards required.

Managing borderline candidates

With the work place assessment (in the New Zealand version), and the orientation of the assessment process to an appropriate understanding of 'Practice' the process is also well placed not only to better assess important criteria that require time in practice to demonstrate, but also to guide borderline candidates as to their weaknesses, and help them regain appropriate competence in the identified areas. Thus the assessment process, through the inclusion of a work place based phase, with a modified registration in New Zealand gives many benefits to the candidate and to the profession where people are not unfairly 'failed' without possibilities of redress, or are unfairly passed, without monitoring of actual practice to clarify any ongoing issues. Determining which candidates are borderline relates to the subject of standard setting, which is discussed elsewhere in this report.

Managing of borderline candidates is critical to the overall quality of the assessment process, and it is important to recognise that borderline ***pass*** candidates are as potentially vulnerable to problems (in assessment judgment as well as practice capability) as borderline fail candidates, and careful feedback to candidates (Veloski, et al., 2006) and ongoing appraisal of the process must be in place to mitigate these issues for both borderline pass and fail candidates (this theme will be returned to later), and systems that focus solely on borderline fails should not be employed.

The establishment of a process to manage borderline candidates in such as way has implications for processes to manage other issues which are of concern to Regulatory Authorities.

Note: The lack of a work place based phase in Australia has necessitated an adaptation of the earlier stages of the exam / assessment process to ensure that the capabilities are assessed as efficiently as possible in its absence. The need for feedback is also very important for candidates in the Australian system, to ensure borderline candidates are fairly managed and are also given chances for resits where appropriate. (Resits can also be available in the New Zealand process).

This report highly recommends the inclusion of a work place based phase in the assessment process and also the inclusion of a Competent Authority pathway for suitable candidates in Australia.

Beyond credentialing exercises

Following on from the above understanding of the potential nature and benefits of work place assessment the assessment model design has applications beyond credentialing overseas applicants – it can be utilised (with only minor modifications) within returning to practice contexts, in competency reviews (following complaints for example), in continuing professional development programme evaluation and for ongoing registration requirements.

Quality assurance mechanisms

The assessment process includes such things as: assessor training, mentor and supervisor training (where applicable), audit of results and outcomes, and standard setting and review to ensure assessors are making appropriate judgments, to reduce bias and to ensure currency with ongoing and future reviews of practice and regulatory requirements in Australasia. The quality control mechanisms are very important to the overall assessment process and will be continuously reviewed.

Other components of the report and other considerations

All the above work has considered best practice in the assessment of health professions, and this report identifies where current practice in osteopathic high stakes assessment nationally or internationally may not best serve the public and profession alike.

Assessment development faces challenges whatever the health profession, and issues such as feasibility, validity, reliability, practicality and resource constraints place pressure on assessment design as do requirements of regulatory authorities or legal systems operating in the local jurisdiction. The lack of research into osteopathic high stakes assessment requires that much evidence and commentary has to be drawn from the literature concerning other health professions. To offset this the projects supporting this report undertook a review of current health professions assessment processes, and considered the current osteopathic assessment processes used in Australasia and other previous relevant work. In particular the report of the UTS project (which used focus groups and other data collection, across Australia, and consultation with experts in health professions assessment to consider best practice in assessment) discussed a variety of commonly used assessment tools in current osteopathic high stakes examinations and across other health professions, identifying the advantages and disadvantages of these tools and their potential applicability for future assessment of osteopaths, and that report was drawn on during the current project. The UTS report defined terms such as 'competence' and 'capability' and discussed basic principles of assessment design. The UTS project also reviewed the relationship between assessment and learning, which is a key element in assessment design literature. The principles of assessment and its relationship to learning in an osteopathic context have been further identified and discussed in an article submitted for publication by Caroline Stone, Prof David Boud and Prof Paul Hager[5]. One main argument presented in that paper is the relationship of assessment design to the understanding

[5] 'Assessment of osteopaths: developing a capability approach to reviewing readiness to practice'. Caroline Stone, Prof David Boud, Prof Paul Hager, October 2010. Under submission for publication.

of the nature of 'practice' adopted by the profession in question, and how this impacts on the choice of assessment tool and on the criteria used within the assessment of performance and capability. The continuation of key members of the UTS project team (and their understanding of all this preceding research and literature reviews) was fundamental to the ultimate design of the assessment process described in this report.

> Note: Assessment design is complex and context driven, and other authors have attempted to describe options for the assessment of overseas-trained osteopaths[6]. That 2010 project for the OBA drew on the UTS Capabilities Document, amongst other sources, and duplicated much work previously described in the 2009 UTS Report. It also uses the Capabilities document as the foundation for its proposed model outline and mapping exercise. The assessment process described there should not be viewed as linked with the one described in this report, and the authors there draw some conclusions which this report does not concur with.

The Assessment Process

The components of the developed assessment process for overseas osteopaths in Australia are as follows:

Stage 1: Expression of interest and Eligibility Review

> Candidates' qualifications are assessed as being comparable to an accredited Australian qualification and must be of an academic standard equivalent to an Australian / New Zealand bachelor's degree (Australian / NZ Qualification Framework level 7). English language abilities must meet specified standards.

Stage 2: Written Papers.

> Available to all candidates: this consists of 3 different written papers, done under supervised conditions. Progression to stage 3 is dependent on passing the written papers.

Stage 3: Portfolio Exercise.

> Available to all candidates who successfully negotiate stage 2: this component will include regular reviews with a supervisor and the completion of various tasks such as case reviews, critical incident reports, learning needs analysis, records review, self-learning reports and interprofessional learning / education reports.

Stage 4: Clinical Assessment.

> Available to all candidates who successfully negotiate stage 2: this consists of clinical assessments utilising real patients, and undertaking other written, verbal and practical assessments.

The components of the developed assessment process for overseas osteopaths in New Zealand are as follows:

Eligibility review (similar to above)

Phase One: Written papers (as above)

Phase Two: Clinical assessment (as above)

[6] 'Alternative models of assessment of overseas-qualified osteopaths for their suitability to practice in Australia'. Report prepared for the Osteopathy Board of Australia on a project funded by the Osteopaths Registration Board of Victoria, December 2010.

Phase Three: Work place based assessment using a portfolio and mentoring over a 6-12 month time period, under a conditional or modified registration with the OCNZ (using some shared components to the above portfolio exercise)

NB: As discussed above there are slightly differing jurisdictional requirements between Australia and New Zealand, and so each process is contextualised to take these into account. However, the two systems are extremely closely aligned, and use the same assessment tools and standards for performance assessment throughout, where possible. The work place based assessment phase in New Zealand (which will be further discussed in this report) is currently not available in Australia for regulatory reasons, but because of its high validity, has been included in the New Zealand model. It is anticipated that this component will be included in the Australia version when that is reviewed over time.

In conclusion

The project has developed a set of tools for the assessment of overseas applicants which is aligned with current best practice in assessment design and underpinned by broad based and future oriented definitions of Practice. The assessment process will have relationships to other elements of regulatory practice such as returning to practice evaluation, fitness to practice investigations and continuing professional development and ongoing registration requirements. In this way the assessment process and related systems will ensure that the work force in Australia and New Zealand is effectively screened and supported for effective and reflective healthcare provision within the modern healthcare arena.

With thanks

To all participants in New Zealand and across Australia, who attended workshops, discussions, meetings and other communications during this project.

It is hoped that everyone gained much through their experience of working with peers, of participating in important developmental work that benefits the whole profession, and by including clinical, academic and research staff from all the educational institutions offering entry level osteopathy programmes in Australia and New Zealand it is hoped that all the new knowledge gained on assessment best practice through participation in this project will benefit those educational programmes and hence all future osteopaths.

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The stages of the project to develop the overseas assessment process / model

This project, and supportive preceding projects, was funded by the Osteopathic Council of New Zealand and the Australian and New Zealand Osteopathic Council. Its purpose was to develop and implement an assessment model for overseas applicants based on current best practice concepts for assessment and learning (Kaslow, Rubin, Forrest, et al., 2007; Leigh et al., 2007; Lichtenberg et al., 2007). It should embody an effective and context appropriate assessment design, which is reliable and defensible and well as being valid and having a good utility across the assessment AS A WHOLE (C. P. M. Van Der Vleuten & Schuwirth, 2005).

In conjunction with consultations with experts in assessment, learning and education, and clinical competence in the health professions a series of workshops were undertaken, supported by small group meetings. Various iterations of documents were produced, culminating in the design of a 3 phase assessment model (with initial eligibility review) which in New Zealand is proposed to include an offshore written component, and on shore clinical component and following provisional / modified registration, a work place assessment phase, which if successfully negotiated would then lead to eligibility to apply for full registration in New Zealand; and in Australia is proposed to include a 3 stage assessment model (with initial eligibility review) to include a written component stage, a portfolio exercise and a clinical exam, which if successfully negotiated would then lead to eligibility to apply for full registration in Australia.

Representatives from all pre-entry level osteopathic education institutions in Australia and New Zealand participated in these workshops and meetings, as well as representatives from ANZOC, OBA and OCNZ, and the Australian Osteopathic Association (AOA), as well as a variety of assessment experts from the medical profession and other professions.

Stages identified to develop the model, and carried out as part of this project[7]:

1. Defining a set of Capabilities for practice
2. Performance indicators
3. Identifying suitable assessment tools to explore those capabilities
4. Mapping of capabilities to assessment tools
5. Blueprinting content and scope of assessments to explore relevant scope of practice and supporting curricula
6. Item writing, development of performance indicators, development of rating scales and scoring frameworks
7. Trialing of the process
8. Benchmarking
9. Standard setting
10. Quality Assurance mechanisms
11. Assessor training
12. Mentor training

[7] Some of these issues such as the review of performance indicators, assessor and mentor training, standard setting and quality assurance mechanisms are long term components which although commenced and in place require time and reviews to ensure appropriate outcomes.

Capabilities required for practice and definitions of practice

When this project commenced it was important that the final model developed was not just something that merely served a purpose, but something that contributed to the skills and expertise of the profession as a whole, whilst being reliable, valid, authentic and reasonable in terms of demand on participants and other resources. Critical reflection on models that would suit current and future needs was a key component of this project and this was an important opportunity to reflect on what it means to be an osteopath in the 21st century, and how osteopaths should be best prepared, and screened for their ongoing clinical capacity.

Therefore when developing an assessment process that looks at the ability of osteopaths to provide appropriate care for people the following question is very important:

> 'What is practice and how should performance be considered?'

The following quote indicates a need for appropriate definitions:

> 'To promote adequate care it is necessary first to define it' (p. 494) (Saturno, Palmer, & Gascon, 1999)

Practice definitions

Considering the nature of osteopathic care in Australasia for the 21st century is a challenge and any assessment process must be oriented to an appropriate definition of practice, and be capable not only of screening individuals who currently meet that standard, but who also appear capable of maintaining their capabilities in the face of clinical complexity and changing evidence and able to meet the challenge of future clinical uncertainty effectively. As Kaslow states:

> 'embracing the culture of competency assessment may require a shift of focus toward the ongoing maintenance of competence as a primary goal and the promotion of both an internalized and institutionalized assessment of that competence at all phases of the professional life span', page 441 (Kaslow, Rubin, Bebeau, et al., 2007)

The process developed here considered various themes:

Current literature on the nature of practice and its relationship to assessment and learning draws out various concepts of practice (Kemmis, 2005; Schatzki, 2001; Schwandt, 2005). These include that it must be situated, contextualised and related to the 'people doing it' and 'having it done to them'. Schwandt amongst others has looked at the practice traditions and has formulated 2 models that represent types of practice:

Model 1: is based in scientific knowledge traditions. Practice is seen as an array of "techniques that can be changed, improved or learned independently of the 'contingent and temporal circumstances" in which practices are embedded. To achieve this, such knowledge must by definition eliminate the inherent complexity of the everyday thinking that actually occurs in practice.

Model 2: draws from practical knowledge traditions. Practices are fluid, changeable and dynamic, characterised by their 'alterability, indeterminacy and particularity'. In this model, knowledge must be a flexible concept, capable of attending to the important features of specific situations. Practice is understood as 'situated action'.

Boud (David Boud, 2009) summarises the implications for assessment:

> "Practice and practice theory point to a number of features we need to consider in assessment. The first is the notion of context knowledge and skills used in a particular practice setting. The kinds of knowledge and skills utilised depend on the setting. Secondly, bringing together knowledge, skills to operate in a particular context for a particular purpose. Practice involves these together, not each operating separately. Thirdly, knowledge and skills require a disposition on the part of the practitioner, a willingness to use these for the practice purpose. Fourthly, there is a need in many settings to work with other people who might have different knowledge and skills to undertake practice. And, finally, the need to recognise that practice needs to take account of and often involve those people who are the focus of the practice."

A broad definition of practice should therefore be adopted in any high stakes osteopathic exam or assessment which looks to include elements of situated and personalised practice capability.

The following discussion is from Stone, Boud and Hager (unpublished, 2010) and illustrates the differences between these approaches to practice definition:

> "Schwandt's Model$_1$ (Figure 1: Schwandt's model 1) includes a cluster of approaches based broadly in scientific knowledge traditions, while his Model$_2$ is based in what he calls the practical knowledge traditions. The first is strongly present in much current discussion promoting evidence-based practice and accountability measurement. The relation of practice to knowledge is instrumental and based on means-end rationalities. The goal is to find efficient means to an end—improvement in practice of one kind or another. Knowledge is always understood as being 'about something' (p 317) that is distinct from the knowing subject and can be 'applied' to the object. In Model$_1$ practice is seen as an array of 'techniques ' that can be changed, improved, learned etc, independently of the 'contingent and temporal circumstances' (p 317) in which practices are embedded. The kind of knowledge generated about practice ought to be 'explicit, general, universal and systematic' (p 318). To achieve this, such knowledge must by definition eliminate the inherent complexity of the everyday thinking that actually occurs in practices.

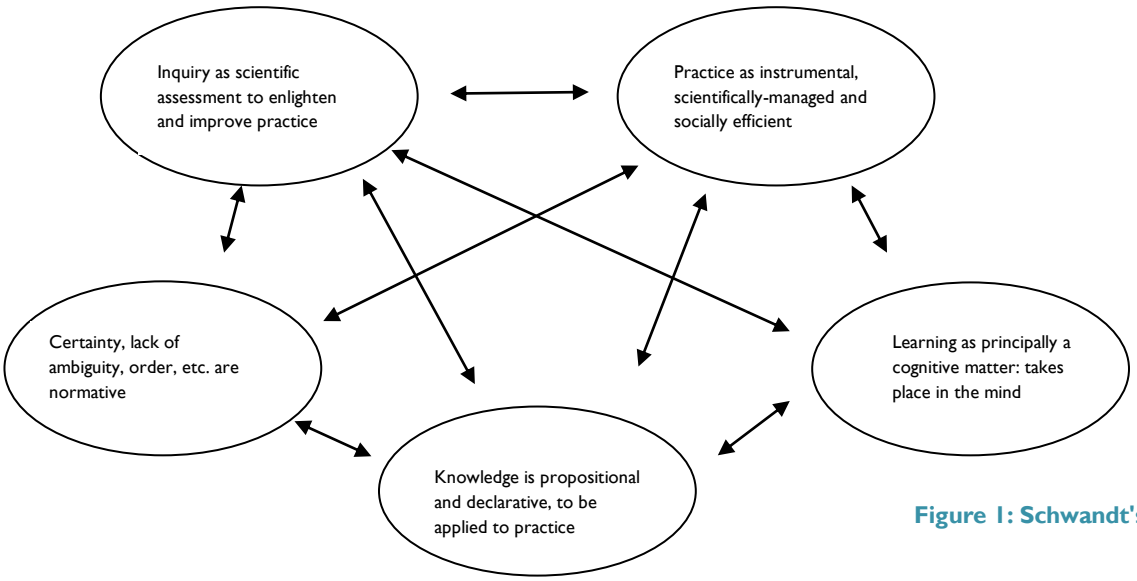


Figure 1: Schwandt's model 1

Model$_2$ (see Figure 2: Schwandt's Model 2), in contrast, takes up ideas about practice of people such as Schatzki (Schatzki, 2001) , who sees practices as 'embodied, materially mediated arrays of human activity centrally organised round shared practical understanding' (p 2). Practice in Model$_2$ is 'human activity concerned with the conduct of one's life as a member of society'. Practice is a 'purposeful, variable engagement with the world' (p 321). Practices are fluid, changeable and dynamic, characterised by their 'alterability, indeterminacy and particularity' (p 322). What is important is the specific situation in which particular instances of practice occur and hence the context-relativity of practical knowledge. Knowledge must be a flexible concept, capable of attending to the important features of specific situations and so on. Practice is understood as 'situated action'. "

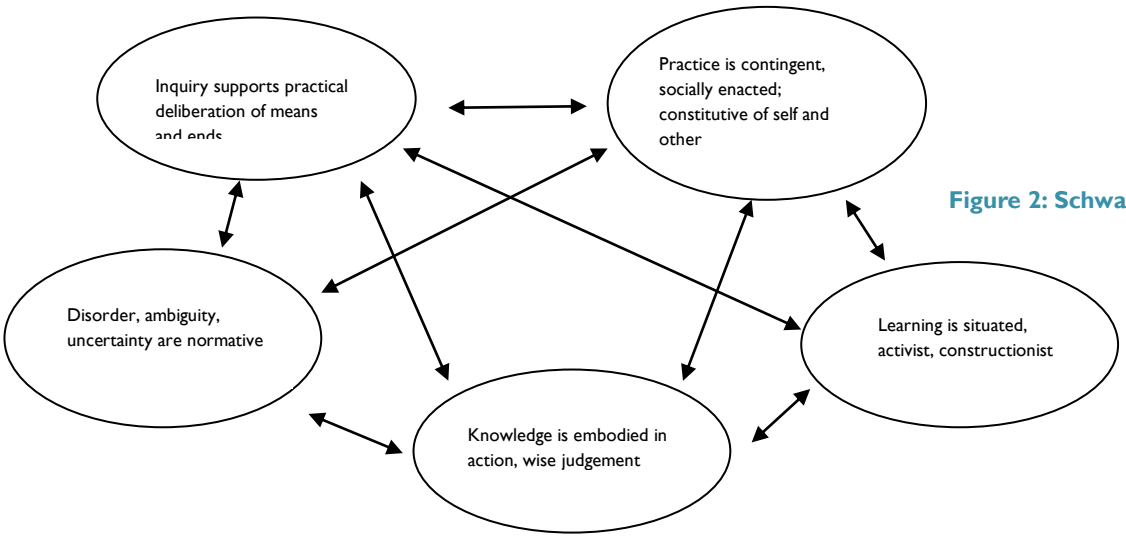


Figure 2: Schwandt's Model 2

The assessment process designed has been based on the Model 2 perspective of practice definitions.

Competence or capability – what to assess?

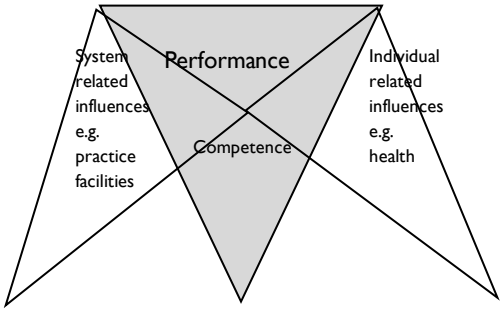
From a regulatory perspective the protection of the public and the maintenance of appropriate standards in practice indicate the need for professionals that can monitor their own competence, meet any required ongoing performance reviews and be capable of adapting their learning needs and actual practice based on a continuous review of their work and of their own personal professional capability on an individual case basis over time. Performance in such a context can be many different things, depending on the particular situation encountered by a particular individual at any given time.

It is important that any assessment process aims to capture the candidate's ability to perform across a range of situations, and over time.

Much of the literature on competence assessment has utilised Millers work (Miller, 1990), which organises competence in relation to a triangle, with a hierarchy of components from knows, knows how, shows how, and does. 'Does' relates to the actual doing of the task, and for a long time was equated with competence. However, the use of Millers triangle is now considered outdated, or at least in need of further development. Rethans (Rethans, et al.,

2002) has described the Cambridge Model, which furthers the concepts of Millers triangle adapting it for issues such as performance review and the long term monitoring of clinical practice (see Figure 3).

Figure 3 Cambridge Model



Miller's model and the assessment processes based on it are best suited to a one-shot in time style of high stakes assessment which considers the current competence of a practitioner, but this is not the best approach for reviewing professional capability as a gateway for entry into a particular jurisdiction. For this the Cambridge model as described above is more suitable, as it recognizes the situated nature of practice, and how performance over time is challenged by a variety of factors. The consultation review process undertaken in the projects for this report consider that the regulatory requirements for practice in New Zealand and Australia should include elements of professional performance review, or at least be aligned with principles related to it as those are more likely to capture aspects of a candidates ability to deal with clinical complexity and future uncertainty. Thus an assessment process designed from the Cambridge model perspective was considered more appropriate than one based merely on Miller's triangle which is more suited to the assessment of decontextualised competence, not performance and capability across a range of situations and cases.

A further way of interpreting Miller's work in the context of the assessment of capabilities as opposed to competencies has been described by Sturmberg (J. P. Sturmberg & Farmer, 2009), and their summary of the components needed to assess capability is shown in Figure 4.

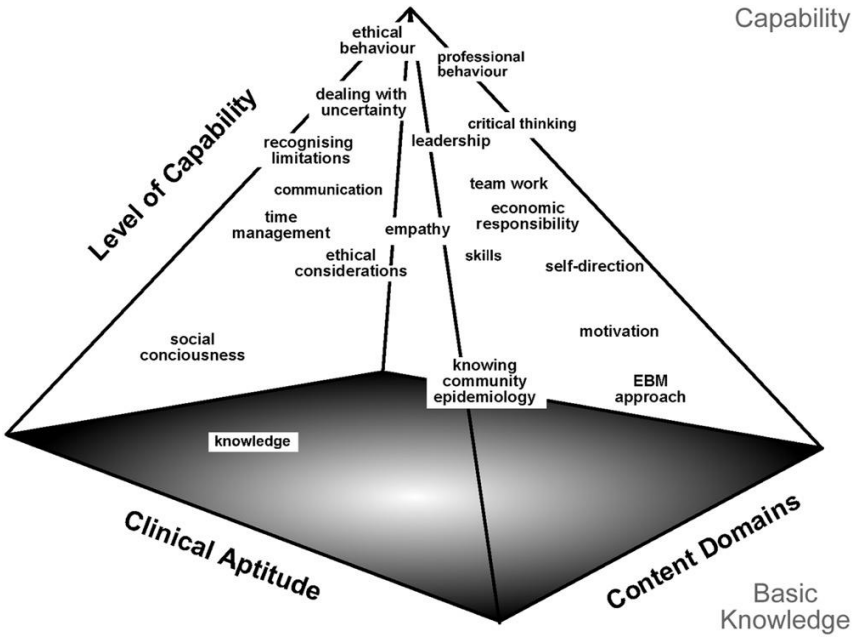


Figure 4: Sturmberg's Capability Components

This begins to represent the capabilities needed in a modern healthcare care provider, where as evidence based dogma recedes (J. P. Sturmberg, 2009; Tonelli, 2006), it is replaced with an understanding that there is much subjectivity and variability leading to uncertainty in health and healthcare (J. P. Sturmberg, 2010).

Seen in this light, the number of components needed to be included within an assessment process that is broadly encompassing of these concepts becomes quite large. This impacts on assessment tool choice, and means that the range of tools needed to be considered is quite large, more so than is currently being employed in Australasian high stakes assessments and assessment of overseas osteopaths.

The work of Kemmis, Schwandt, Schatski, Boud, Rethans and Sturmberg as discussed above all have a degree of congruity in the implications for assessment design, and have been key in the development of the assessment process in this report. They were also fundamental to the development of the Capabilities required for practice, in the UTS project, and this builds in consistency within the overall assessment design, which is important.

Who is being assessed, implications of the novice to expert progression in practice

In a credentialing assessment to review suitability to practice of osteopaths not eligible to register without some form of skills assessment, the people being assessed are already qualified practitioners in their country of origin (this being one of the criteria of the eligibility stage of both the Australian and New Zealand versions of the process).

This puts the assessment process on a different footing than one designed to assess pre-entry level graduates or undergraduates in professional programmes. The range of educational histories and professional experiences of candidates will vary considerably – which is not the case with entry level professional credentialing exams. Therefore

assessment processes must be able to accommodate the different expressive and conscious rationalising capacities of both novices and experts and all in between, which have been recognised in various forms since Benner's foundation work on this topic (Benner, 1982).

Other factors to consider are that older, more experienced practitioners are not necessarily more skilled than novice professionals, and indeed may be more at risk of practice error than their less experienced peers (Choudhry, Fletcher, & Soumerai, 2005) and so their assessment must be just as rigorous as a new graduate. They are also prone to problems in recertification (which this process is akin to) through changes in medical knowledge over time (Day, Norcini, Webster, Viner, & Chirico, 1988). In medicine it has been noted that a doctors practice narrows over time, and that perhaps should then be screened against the realities of their personal practice scope as opposed to the theoretical breadth of scope available to a new graduate, prior to developing special interests, or preferred fields of practice (Melnick, Asch, Blackmore, Klass, & Norcini, 2002). Such a concept might have relevance in osteopathic assessment, and this point is picked up again later in the report. As such all practitioners entering the assessment process will have different ranges of capability, and a diverse mix of knowledge, skills and capabilities which are lacking to some extent. Part of the process of the assessment as stated elsewhere is to aid learning, to help up-skill the candidates and to utilise the process not only as a credentialing exercise but also as a learning tool that can ultimately lead to a more effective and competent workforce. The assessment of learning needs is therefore an important part of the process and is undertaken as part of the portfolio exercise in Australia and in the work place based phase in New Zealand. Assessment of learning needs complements many other elements of the assessment process and feeds directly into the self assessment and critical reflective components which are discussed elsewhere, and embedded in numerous parts of the assessment phases or stages.

Whilst it is essential that everyone is assessed against the same set of capabilities and to the same standards, helping candidates become aware of their shortfalls and areas of deficiency is important, and will not only help them appreciate what levels of performance may meet the required standards, but also helps them to recognise problems in their own capacity, and to formulate ways of redressing this. As discussed elsewhere, this ability of critical reflection is thought to be key to the ongoing competence of a practitioner over time. In this context, assessing the learning needs of a candidate and getting them to do this for themselves, with subsequent discussion with a supervisor or mentor (McKimm & Swanwick, 2009) will be beneficial to all aspects of the process.

Changing environments and cultures

One other set of factors which are important is the fact that many candidates applying will be both culturally and linguistically unfamiliar with the proposed new working environment, and as importantly, be unfamiliar with the local culture of professional practice and be unpractised in the fine details of local legislative, regulatory and social-cultural components of the healthcare delivery system and patient population with which they propose to engage. Transition from competent in one arena to competency in another can be a challenge (Livesley, Waters, & Tarbuck, 2009) and it could be argued that trying to assess certain capabilities prior to that person's engagement with those local actualities may be somewhat unrealistic. For this reason the work place based phase of the New Zealand model is seen as a significant component as it allows time in a supportive setting for newly registered practitioners to become aware and competent in things are only evident in a local context. Both Australia and New Zealand are strongly multicultural environments, and this may be a challenge for some practitioners who are not familiar with that type of socio-cultural patient and health-professional population. Trans-cultural practice (Maier-Lorentz, 2008) both for patients and for practitioners (Bjarnason, Mick, Thompson, & Cloyd, 2009) is therefore something to be discussed, clarified and

supported in some way for any newly registered professional entering through this assessment process. Cultural competency is a difficult thing to assess as it is difficult to define what is meant by the term (Williamson & Harrison, 2010), but the challenge remains none the less. It may be that some form of education programme once in the local environment to orient the new registrant would be a useful requirement (Vyas & Caligiuri, 2010). For all these reasons, in this assessment process for Australian candidates a strong emphasis on cultural competency testing has therefore not yet been made, but in New Zealand a cultural competency module to orient practitioners is proposed.

Self assessment

Practitioner self assessment is increasingly common in assessment processes but the evidence suggests that people aren't always their own best judge (Davis et al., 2006), and it seems that the least competent are also the least able to self-assess accurately. However, there is also evidence that the accuracy of self-assessment can be enhanced by feedback, particularly video and verbal, and by providing explicit assessment criteria and benchmarking guidance (Colthart, et al., 2008). Self assessment is an important tool and if its challenges and complexity are understood its place in credentialing processes and ongoing clinical performance can be better informed (Sargeant et al., 2010).

That said, self-assessment is a skill that is regarded as a defining attribute of a professional (Heron, 1988) and contributes to life-long learning (Tracy L. Levett-Jones, 2005). Self assessment of competence also implies that people are making judgments about the nature of the standards they should identify in their work and the extent to which these have been demonstrated (David Boud, 1999). This type of deconstruction and reconstruction is informative to future practice capability. As such self reflective practice has been built into many components of this assessment process, such as described in the sections on observation and portfolios.

Assessment of skills and attitudes

The assessment of knowledge may be easier than that of skills and attitudes (Elman, Illfelder-Kaye, & Robiner, 2005), but there is a need to develop appropriate strategies for measuring skills and attitudes as these are key capabilities for practice. One way of achieving this may be the use of problem based learning approaches (D. Boud & Feletti, 1997; Evensen & Hmelo, 2000; Kaslow, Rubin, Bebeau, et al., 2007), the principles of which can be embedded within various assessment tools. As well as its relationship to self reflection (Williams, 2001) and self assessment of skills, values and intentions (the assessment of which is described in the observation section, self assessment section and portfolio section), PBL is also included in this assessment in the written papers, which utilize modified essays, key features approaches and an extended matching question format.

Assessment of professionalism is a challenge and a number of methods, including mutli-source feedback have been proposed (van Mook, Gorter, et al., 2009). Some even suggest that the best way of addressing unprofessional behavior is better screening of initial applicants to training programmes (van Mook et al., 2010). Apart from real patient encounters, and real interprofessional encounters standardized patients can also be used with some confidence to assess things such as empathy, values, patient communication and general professionalism, and can be very useful in this context when assessing foreign trained practitioners for entry into healthcare service (van Zanten, Boulet, Norcini, & McKinley, 2005). Although this could be a beneficial component of the assessment process here, standardized patients are not used, for reasons of cost, and demands for training and of recruitment. For different reasons, peer assessment is not used in this assessment process, as although useful it should be done in an anonymous manner, in a supportive environment, with positive and negative aspects of behavior considered, and where feedback

can be immediate and meaningful (Arnold et al., 2007). Gaining retrospective peer feedback from colleagues where the candidate can 'pick' the colleague to choose from (to send in as part of a desktop or initial facet of an assessment process, for example) introduces significant bias in a process, and although peer assessment might have a role in a work place based phase of this process, it was concluded that it could not be fully implemented in a traditional sense. However, aspects of peer communication and feedback will be utilised through the mentor reports and relationship (in New Zealand) and to some degree in the supervisory reports and relationship in the portfolio exercise (in Australia).

Inter and intra-professional education learning and collaboration

Healthcare provision in the 21st. century is increasingly multi-model and delivered in many shared care and collaborative arrangements (Mickan & Rodger, 2005), and an emphasis on integrated medicine and inter and intra-professional education, learning and practice is becoming more and more prominent. In such a climate the challenges of inter-professional communication and engagement is increasingly important and one that all osteopaths must address not just those migrating from overseas to enter into a new healthcare system culture.

Stereotypical perceptions, role confusion and tensions between similar professions and between complementary and alternative medicine (CAM) practices and medicine abound, and can vary depending on which profession is consulted and which country one is referring to (Hean, Clark, Adams, & Humphris, 2006; Langworthy & Smink, 2000; Streed & Stoecker, 1991; Turner, 2001). Despite use of CAM therapies being prevalent (McCabe, 2005; Sherwood, 2000) (Sherman et al., 2004), referral patterns between orthodox and CAM is somewhat limited (Simpson, 1998) and integrative care can be challenging (Baer, 2008; Hollenberg, 2006).

It is expected as a part of standard practice that osteopaths in Australasia engage with other health professions in patient centered care, to contribute to achieving the best outcomes possible in managing a person's presentation. Many of the capabilities are oriented at the skills in interprofessional liaison, communication skills and attitudes which are important to achieving this type of practice. Working with other professions can be challenging (such as between CAM therapies and orthodox medicine, for example), and working with similar groups (such as between osteopaths, chiropractors and osteopaths) can all create tensions and be problematic to working together, and which can be threatening, undermining or destabilizing for the individuals concerned (Boen & Vanbeselaere, 2001; S. D. Brown & Lunt, 2002; Jetten, Spears, & Postmes, 2004; Stryker, 2007). All of this is considered to negatively impact on effective patient care (Mainous, Gill, Zoller, & Wolman, 2000).

A simple retrospective appraisal of referral letters and communications to other healthcare practices may not provide sufficient evidence of awareness, capability or preparedness to communicate and operate in a multi-disciplinary and interprofessional environment such as one is likely to meet in Australasia in the current and future healthcare climate (especially where the previous culture may not have been one of engagement). Whilst a review of record keeping in that regard can be a small starting point, skills in this regard can equally be addressed in workshops, through discussion and as part of continuing professional education events. The use of records review for general case history and case records is used within this assessment process and this gives an opportunity for feedback on the appropriateness of those records, which is the first step in being able to communicate such data to other professionals. Then, the assessment process also requires some commentary on interprofessional education / learning / collaboration in the portfolio exercise or workplace based phases, which have to be discussed. This discussion is an opportunity for a lack of awareness of appropriate standards and engagement to be identified, and plans can be formulated for remedial

action as required. Hence it was felt important to include some aspect of interprofessional reflection as a part of this assessment process.

It is anticipated that as professions naturally work together more (A. McCallin, 2005), learn together more (Hammick, Barr, Freeth, Koppel, & Reeves, 2002; Hind et al., 2003; King & Ross, 2003), research together more (A. M. McCallin, 2006), and generally become more aware of others roles, boundaries and potential contributions (Reeves, Freeth, McCrorie, & Perry, 2002) that integrative care may be more realistic and achieve improved patient care outcomes.

Assessment preparation and completeness

It is important that as many capabilities for practice are assessed in a credentialing exam as possible.

However, some are implausible to test in certain circumstances (such as capabilities that consider the persons engagement with their employees, as they might not have had any, and certainly won't have any in a short time frame high stakes exam such as a credentialing exercise). Others that relate to patient management over time, and reflection on errors, unexpected outcomes and challenges of clinical uncertainty and unfamiliarity can only be weakly assessed in a very short high stakes exam with only a few patients being assessed. The timeframe is inappropriate for many of those capabilities to be adequately demonstrated and also if those patients don't display problems that enable those capabilities to be assessed, then unless there are other assessment tools that can give insight into those capabilities, the exam / assessment process is not going to be capable of evaluating them.

Any system that relies on a few assessment tools only such as self-chosen case discussions and a handful of patients for a long case exam is going to be extremely inadequate at assessing a significant proportion of capabilities. This has certainly been the case in current credentialing exams for overseas practitioners in Australasia, and new proposed models other than the one described here also make the same errors of design and mapping.

The assessment process designed here has several components in it that aim at triangulation of competency assessment as it is important for many capabilities to be assessed using multi-modes and on multiple occasions, although merely using multiple assessments should not be confused with absolute triangulation (Fotheringham, 2010). In this context it is also important to note that as there are many capabilities to be assessed it is difficult to divide the capabilities up into stages, and then merely assess only some at each stage and declare that if someone has 'passed' all the stages that they are therefore competent overall.

Blue printing and mapping

One aspect of improving the quality of competence assessments to it go through a rigorous item development stage, to have triangulations across tools and to blue print or map the competencies across field of practice and against types of assessment tools (C. Roberts, Newble, Jolly, Reed, & Hampton, 2006; Wass, et al., 2001)

Blue printing is a term increasingly used to describe a process in medical education and assessment where the content mapping of an assessment is scrutinized to ensure it adequately reflects whether the curriculum or the range of clinical presentations, patient demographics and aspects or fields of practice that a typical practitioner (or osteopath in Australasia in this case) is expected to encounter in general practice (Hamdy, 2006).

Having a good insight into what is general practice and what constitutes the fields of knowledge and experiences that an osteopath will naturally be engaged with can be difficult as data is low. Some studies have gathered data on osteopathic practice, but this might not be readily transferable to an Australasian arena due to regulatory and practice differences (Boulet, Gimpel, Errichetti, & Meoli, 2003; Licciardone, Clearfield, & Guillory, 2009). However efforts are now being made to capture this data through the development of a standardized data collection tool for osteopathic practice that could be suitable for Australasia also which can be found at http://www.osteopathy.org.uk/uploads/standardised_data_collection_finalreport_24062010.pdf

In the absence of formal data, expert opinion was sought through a series of focus groups in New Zealand and Australia to profile the common and expected range of fields of practice, and this content description was used within the blueprinting exercise. The groups felt some areas of practice were commonly experienced by all osteopaths and some were more special interests – and were not always part of every individual's practice. Debate ensued as to how much content one should include between general practice and any special interest fields, and the consensus was that a mix must be created as patients were felt more likely to present with a wider range of conditions and scenarios than the osteopaths might be experienced in. Hence the content identification was still broad based for the purposes of this assessment. This is one of the main reasons that it was felt that having only clinical practical exams with a few patients could not be sufficient to capture that breadth of content, and so the written exams were strongly focused on ensuring the breadth of practice knowledge required was assessed.

For the clinical exams in this assessment, consideration was also given to the range of patient conditions that should be aimed for when recruiting patients for the assessment event. Content mapping was considered in this context, and commentary has been prepared to guide institutions or clinics that are hosting or recruiting for the clinical exam regarding patient presentation profiling that is considered optimal for this assessment process.

Through this method, when the assessment and osteopathic experts attended workshops to undertake the item writing for the written papers, they were able to be given clear guidance as to the content spread that should be covered. Item writing workshops were held in Australia and New Zealand, and also by subsequent email communication.

Mapping of the capabilities to be assessed, to ensure adequate coverage by the assessment as a whole is another use of mapping within assessment, but should NOT be viewed as a replacement for content mapping and blue printing which is essential for the assessment to be valid. Mapping of the capabilities across the assessment tools was done over several iterations, through several workshops, and by a number of people from Australia and New Zealand who were experienced osteopathic practitioners, experienced educators and who were knowledgeable about aspects of practice, public protection and regulation issues, to ensure the workshops were well informed. As the process of assessment design flowed across workshops, and as criteria were refined, and mark sheets were designed, there was ongoing review as to the appropriate mapping of capabilities within each tool and these continued to be refined and sorted to improve the emerging tools.

The frequency with which each capability is being assessed (in the Australian version) is shown in Appendix 1: Frequency of capabilities assessment across tools in all stages of the Australian Overseas Assessment process, and the mapping of the capabilities across the range of assessment tools (in the Australian version) is shown in Appendix 2: Mapping of the assessment of the various Capabilities against assessment tools utilised across each stage in the Australian Overseas Assessment Process.

Identifying suitable assessment tools

Written exam components

Numerous guides to item construction in written papers are available, one of the principle / founding texts being that of Case and Swanson (Case & Swanson, 2003). Here the differences, pro and cons and illustrations of various types of written tests are discussed and illustrated. Costs can be significant in pooling expert assessors in teams to construct items and the testing for reliability and validity can be a challenge for professions where small cohorts are expected to participate in the exam. Nevertheless they can be extremely useful for knowledge testing, and for assessing problem based learning skills across a range of clinical conditions, situations and fields. Knowledge tests such as these can also be extremely important to offset problems associated with the use of small numbers of live patients in practical observational clinical tests, where numbers cannot in any way presume to allow sufficient coverage of knowledge fields to be a predictor of competence across a range of clinical situations, especially when done with clinically contextualised scenarios and vignettes, in a problem solving, and reflective manner. They are also very useful as they free examiner time (and therefore cost) to assess those things which are critical to observe – basic knowledge testing not being one of those.

In this assessment process modified essays, extended matching questions, and key features items are used. These were written after extensive assessor preparation by a range of assessment experts skilled in these items, and several iterations of the questions and model answers were shared between the item writers, prior to their trialling for benchmarking purposes using actual registered osteopaths in Australia attending the annual AOA convocation in 2010. The outcomes of that trialling will also be useful in standard setting tasks which are built into the assessment process outlined in this report.

Written item security has been considered, and the need for ongoing item construction to ensure adequate supply of fresh and benchmarked items over time has been identified and built into the assessment process design. Samples of written items are also available for candidate perusal, to improve clarity concerning this stage / phase of the exam.

Other important comments on the approach to item writing and test construction used in this assessment process were discussed under the heading ‘blueprinting and mapping’ above.

Key features, extended matching and modified essay formats

These three types of tools ere considered the most appropriate to consider such things as problem solving, context driven clinical decision making, and applied knowledge (Farmer & Hinchy, 2005; Feletti & Smith, 1986; Irwin & Bamber, 1982; Palmer & Devitt, 2007; Rabinowitz, 1987; Rabinowitz & Hojat, 1989; Samuels, 2006; Wood, 2003). As stated elsewhere much care has been given to the development of items in these papers, and although very expensive per item to write (given the panel of experts needed to construct them), this cost is offset by the positive benefits relating to reliability, validity, their contribution to content mapping and blue printing, and as a basic screen at the initial stages of the assessment process as a whole to indicate suitability to progress to later stages / phases.

Observation

Essentially, all the observation methods (mini CEX, direct observation of procedures, case based discussions and so on) used in the assessment process draw from the culture of work place based assessment, and whilst not done in a strict workplace environment (they are done in the clinical phase / stage of the process, where candidates must work in an unfamiliar clinic, with patients who are new to them, under exam conditions), it is important that the tools and observations made are a real as possible. In this way, understanding the principles, challenges and benefits of work place based assessment that have been identified (Swanwick & Chana, 2009) has been useful in the planning of these components of the assessment process.

Direct observation is a highly valuable tool in assessment, and although for geographical and other resource reasons direct observation of a practitioner's activities in their place of work is not practicable, it is essential that any clinical work they do that is appraised in some way is as closely aligned to the real work of that practitioner as possible (Fromme, Karani, & Downing, 2009), rather than being in a highly structured format. For this reason (amongst others) the use of long case exams as the observation method of choice is not most appropriate. In current osteopathic entry level programmes, high stakes exams, and other credentialing exams performed in Australasia, the UK and other parts of the world the long case is usually interrupted at various points which disrupts the natural flow of a candidates work, and is often 'individualised' by moving the questioning away from case specific components to other general knowledge testing and interviewing, thereby skewing the assessment and introducing types of bias. This makes the observation not of real work, but of a stylised performance oriented to the assessment process, which beyond other problems with validity and reliability make the long case questionable as a sole mode of observational assessment.

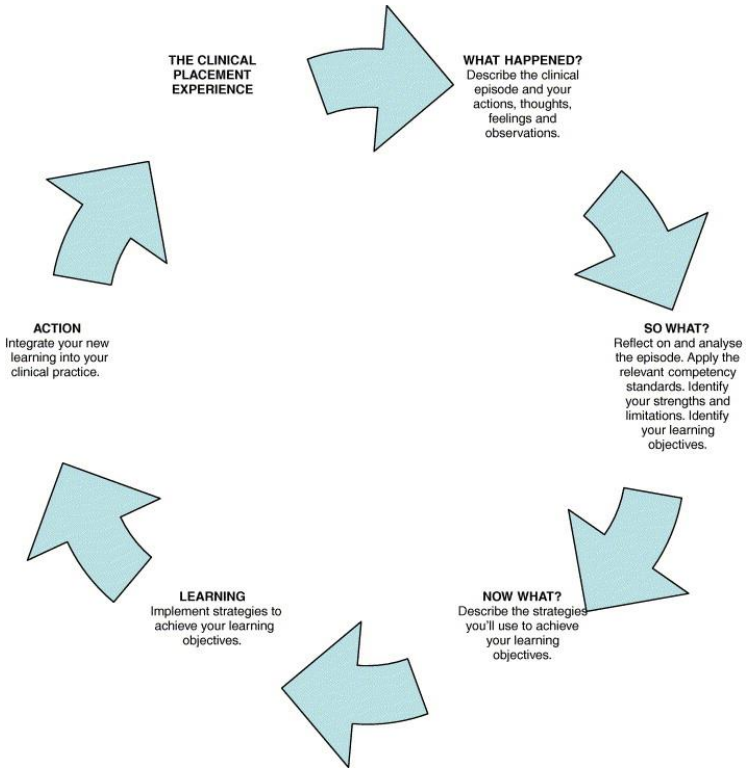
Other methods of observation of practice include the Mini CEX (mostly used in medical practice) and the SOAP (mostly used in / developed within nursing practice). They are both very interesting developments for the assessment of observed clinical practice (T. Levett-Jones, Gersbach, Arthur, & Roche, 2011; J. J. Norcini, et al., 2003). Levett-Jones describes the Structured Observation and Assessment of Practice (SOAP) as a comprehensive and practice-driven clinical assessment: 'During a two-three hour observation period where students are engaged in their usual patient care activities, each of the student's discrete nursing behaviours are documented in sequence by their assessor using a situation, action, outcome (SAO) format. .... Following the observation period a VIVA is conducted.. .. In the VIVA conducted as part of the SOAP assessment probing and open ended questions are used to elicit the intentions, knowledge, rationales, attitudes and values underpinning a range of the most significant student behaviours observed by the assessor. ' (page 66). The viva is essentially a structured interview focusing on the rationale and reasoning behind the actions observed and engages with the attitudes, values, knowledge and intentions of the person being assessed. The use of a structured viva to analyse reflections on practice is something that is easily transferable to osteopathic assessments, and having a candidate reflect first on their rationales and approaches, and then having these analysed and discussed with an assessor brings an opportunity to gain access to the values, intentions and rationales of the candidate in an efficient manner. The assessment process here does not follow the SOAP format faithfully but has taken the principles of the viva section and utilised them in the design of the self reflective case report and the case based discussion assessment components of the various stages / phases in the process, to better appreciate the critical self appraisal of the candidate and their underpinning values and knowledge.

The use of an actual SOAP format may prove to be a very useful addition within the assessment process over time.

Levett-Jones has also commented on the use of narratives in learning and assessment (Tracy Lynn Levett-Jones, 2007), which allow also reflection on outcomes in a way that promotes learning opportunities, self assessment of competence

and decisions on how to implement new knowledge, perspectives or learning in future clinical action, which she illustrates by a flow diagram (see Figure 5: Reflective learning cycle). This learning cycle is utilised not only in the case based discussions and self reflective case reports in the portfolios and the clinical exam stages / phases, but is also drawn upon in other portfolio items, such as the self learning reports, critical incident reports and learning needs analysis that candidates have to fill in. Hence the opportunities to review the reflective ability of the candidate in this assessment process should be strong.

Figure 5: Reflective learning cycle



Mini CEX and DOPS

This assessment process uses the mini CEX format originally described by Norcini (J. J. Norcini, et al., 2003) as one of the major components of the clinical practical stage / phase. It is increasingly used across training in medicine and other professions, as well as in high stakes examinations. This is a shorter clinical observation than the long case, enables a greater number of observations from a greater range of patients to be elicited, and is often employed in a work place based situation. Its validity and reliability in that context have been explored over some years and has been reviewed favourably (Hawkins, Margolis, Durning, & Norcini, 2010; E. S. Holmboe, Huot, Chung, Norcini, & Hawkins, 2003; Kogan, Bellini, & Shea, 2003). Although its use in osteopathic high stakes examination is a novel departure, it is one that has been carefully considered. Also, although there is no particular data on its use in osteopathy, its other alternative, the long case, is little established in research within osteopathy assessment literature.

The implications for assessment design, and assessor training amongst other factors in the literature above have been considered in the design of the mini CEX cases. Again, workshops were held to scrutinise which capabilities should be assessed within the mini CEX exercise, and these were reviewed through several iterations. As some of the potential assessing team were members of these workshops, the issue of inter-rater reliability and consistency of judgement should be offset to some degree, as the assessors have now spent some time being embedded in the design culture and format of the mini CEX's (and their related performance indicators). A specific rating scale was also developed through these workshops for use in these osteopathic CEX's, which will also be reviewed as the assessment continues to be used. The forms themselves (and the criteria etc) were trialled using real osteopathic practitioners as candidates, and some of the assessing team and the assessors of the day, and feedback sought from candidates and assessors, and this was integrated into the final form design. Reports on their use were favourable from both parties, who were all familiar with the alternative tool and its use: the long case format.

Traditionally long cases in osteopathic high stakes exams have considered that the typical osteopathic consultation has 3 main sections: case history, examination and treatment. Through the workshops it was recognised that this did not actually represent the spread of actions that were important throughout the whole consultation, and that another 'section' in terms of what was to be assessed should be added. After examination and before treatment there should be a space where the candidate is specifically observed explaining their diagnoses and hypotheses to the patient, gaining informed consent, discussing prognoses and self-help strategies, and highlighting risks or other important issues that the patient needs to be aware of before treatment (or referral, for example) can be undertaken. The negotiation of a 'contract of care' and the process of getting informed consent are viewed as extremely important from a regulatory perspective as many complaints against practitioners stem from poor communication and confusion as to the intention and intended outcomes of a treatment. Thus for this assessment process there are 4 components that are assessed, and 4 mini CEX assessment forms have been designed: case history taking, examination, negotiation and informed consent, and management (including treatment if this is delivered).

The history taking component, and emphasis on its observation is very important (as discussed in the long case section), and receives particular attention in the assessment process here. The candidate's ability to gather information in a variety of ways and through varying strategies will be assessed by a number of different assessors. Also, the records produced by the candidate from that history taking will be used in subsequent sections of the clinical practical exam where the records are first reviewed, and then used as part of a reflective exercise between the candidate and an assessor where the justifications, analyses, approaches and values of the candidate are explored TOGETHER WITH A RIGOROUS EXPLORATION OF THEIR INTEGRATED OSTEOPATHIC PERSPECTIVES for that patient.

The assessors will go into the clinical sessions at random, and will appear at different stages of the consultation, without the candidates knowing which section of the mini CEX is to be observed during any particular patient encounter. Taking a number of views by assessors regarding each of these sections will give insight across a candidates performance, and with examiners coming in and out more in a 'fly on the wall' manner it is anticipated that this will create a more 'real practice' environment, than an interrogatory style of long case assessment, which is more intimidating and more likely to disrupt the 'real' nature of the performance observed. Some questioning may be allowed, but this is not to divert from case specific items, and is for clarification of observations, rather than to explore in depth the rationale behind those actions.

The discussions about such rationalisations and justifications will be done through a carefully designed self-reflective exercise, which has been highlighted throughout this report, and in particular on the section on observation. This is

where the integrative nature of the candidates' osteopathic practice can be explored in depth. The patient encounters chosen for this interrogation will be chosen at random, to reduce bias.

For the physical examination section of the patient encounter or consultation, it is important to consider content blueprinting and mapping as well. In addition to content mapping made elsewhere, it was important to appreciate how many (or more realistically, how few) different physical examination routines might be able to be performed through case need i.e. with a limited number of patients, one cannot guarantee that all systems reviews such as neurological screening, visceral examinations, cardiovascular, respiratory or orthopaedic examinations might be able to be observed. Hence, it was decided to include a series of DOPS (direct observation of procedural tasks). examinations, so that routines of procedures should be assessed using models, rather than real patients. The routine is being assessed, rather than interpretation of results, which can be more cost-effectively assessed using applied knowledge tests in the written papers, for example.

It is also important to recognise that in many high stakes exams candidates have the tendency to perform 'as many examinations as possible, to ensure every eventuality is explored' rather than tailoring them to case need. This shows considerable lack of clinical judgement and analysis, and should be limited wherever possible. In the assessment process here it is emphasised to candidates that they are assessed on their clinical discrimination, their ability to be discerning in choice of clinical screening and examinations, and on their judgement as to the utility of any given examination for that individual. Hence what should be observed should be closer to the candidate's actual performance in practice, rather than being an abstract construct as a result of 'being assessed'.

The negotiation of a contract of care, and the approach to gaining informed consent section, as discussed, is a new component in clinical osteopathic testing and should provide additional important insights into the candidate's performance.

Case based discussions and records reviews

Records

Clinical records are the most basic of clinical tools (Pullen & Loudon, 2006), and record keeping has long been recognized as highly variable and prone to error or withholding – conscious or unconscious (Eric S. Holmboe & Hawkins, 1998). Various tools have been developed, such as the Crable score and the SAIL instrument (Bridges & Thomas, 2002; Crawford, Beresford, & Lafferty, 2001). These are useful guides, but may not be easily transferable to reviewing osteopathic practice records. There are many types of errors in record keeping (Dimond, 2005) and improvement may require continued re-audit of record keeping skills over time with good feedback (Griffiths, Debbage, & Smith, 2007). Mechanisms for ensuring record confidentiality and security are also important (Castledine, 2006).

Records review is used within this assessment process, within the clinical practical exams, and less formally in the portfolios (where anonymised records accompany case based discussions / reflections). The assessor is not required to assess them, but to use them as supportive evidence to aid dialogue and discussion around the case submitted. A records review form was developed by the assessment design team which is considered satisfactory in this context by the assessors who reviewed it, but further work in this area is required to establish the best approach to records review in osteopathic practice.

Within the mini CEX practical candidates can supply their own case history forms as blanks, or if not, will be supplied with blank paper to record their history and other notes on. This will give a reasonable insight into their usual record keeping practice. Candidates will be made aware of this, and those unused to paper records (because they use only electronic records in their usual practice, for example) must take this into account.

Informed consent

The use of pre-printed informed consent forms is not allowed as part of the mini CE and although candidates are expected to gain informed consent throughout the consultation (Cable, Lumsdaine, & Semple, 2003) – despite the complexity of achieving this (Delany, 2002) – and must be observed as it happens (at the appropriate time in the consultation) as people cannot be expected to give unconditional consent at the beginning of a consultation. This also has the potential to give a sense of false protection on behalf of the practitioner, who may then not effectively gather informed consent when it is needed DURING the consultation. Candidates are made aware of this issue in advance. There may also be inter-cultural problems with gaining informed consent in an assessment process such as this, when candidates (from overseas) and patients (local) are more likely to come from differing backgrounds, which is recognised as potentially causing problems (L. W. Roberts, Johnson, Brems, & Warner, 2008). For all these reasons, reviewing the gaining of informed consent as an individual item through the use of a dedicated mini CEX form was seen as an important addition to the clinical practical exam used in this process.

Case discussions

Accompanying the records review are case based discussions and self reflection case analyses as described elsewhere. They are considered an important aspect of competence and performance assessment (John J. Norcini & McKinley, 2007), but do require careful consideration in their design, and the more a candidate can do the more effective the tool (N. Brown & Doshi, 2006). Candidates must undertake these both in the portfolio sections and in the clinical practical exams.

Reflective practice and portfolios

Although the evidence relating to the usefulness of portfolios is mixed , they are commonly used to support reflective practice, deliver summative assessment, and aid knowledge management processes, and seem to be particularly useful to help increase personal responsibility for learning and supporting professional development (Tochel et al., 2009). Portfolio use is increasingly adopted in a variety of assessment situations, and it is necessary to reflect on potential long term unintended consequences of their use, such as challenges to patient privacy, disclosure of clinical information, and professional liability exposure of practitioners (Nagler, Andolsek, & Padmore, 2009) and to consider how this might be mitigated in some way. That aside, they are being used in the assessment process here to aid self reflection, knowledge management, for summative assessment and as a format to provide evidence of a range of skills and attitudes that draw on the candidates general practice outside that which can be observed in a clinical practical exam in a time-limited opportunity, and which might otherwise be difficult to assess (Byrne et al., 2007). Careful design of the portfolios (Byrne, Schroeter, Carter, & Mower, 2009), triangulation and prolonged engagement with the portfolio are helpful to the reliability of portfolios (Driessen, van der Vleuten, Schuwirth, van Tartwijk, & Vermunt, 2005) and assessor training can all help offset problems in defining and measuring competence so that those problems may be reduced (McCready, 2007). These components have been built into the assessment process here. Candidate feedback, discussion opportunities and clarification through communication and mentoring (Driessen, van Tartwijk, van der Vleuten, & Wass, 2007) all aid portfolio usefulness and are also key components of the assessment process described here.

The portfolio in use in this assessment makes use of the above literature, and includes a variety of items, such as (but not limited to) reflective practice, has discussion on items submitted, uses real clinical practice as a basis for certain tasks, is audited / reviewed by the person, their assessor and another marker, and is done over a period of time where the candidate and supervisor (or mentor, in New Zealand) have the opportunity to work through issues raised by the portfolio tasks. This discussion is critical to the implementation of problem based learning (Williams, 2001), to aid self reflection and self assessment of competence, which as discussed elsewhere are key components of this assessment process (being key capabilities required for practice). This is tied into other aspects of the portfolio also: a strong component throughout is the use of the reflective learning cycle principle (introduced in the section on Observation), where the portfolio items and tasks are designed to aid learning and conversion of that learning into actionable changes in clinical practice. This principle is used in the learning needs analysis, the case based discussion, the inter-professional learning / education report, critical incident reports and self-learning reports aspects of the portfolio as well as other components in different stages / phases of the process. In addition, discussion of learning points and oral justifications of evidence identified, and learning outcomes achieved on behalf of the candidate (through the use of such things as self learning reports, critical incident reports and the learning needs analysis) can be very useful adjuncts in assessment (Burman, Hart, Brown, & Sherard, 2007). Portfolios with only a small range of items are likely to be of less value both to the individual and to the assessment process.

Finally, because of the prolonged engagement in the work place based phase of the New Zealand model it is anticipated that those candidates will have the greatest opportunity to use this assessment processes as a learning aid, and to improve their practice as a result.

Multisource feedback

Multiple commentaries from a variety of people who have contact with the person being assessed can be sought. These types of feedback consider capabilities and values that are otherwise difficult to assess, such as communication, empathy, working together abilities, ethical issues and general professionalism (van Mook, van Luijk, et al., 2009), the assessment of which is also discussed in the section on attitudes. The comments on peer assessment under the attitudes section above are also relevant here, and should be reviewed. Further to those comments, other professions have designed specific test items to assess these types of capabilities (J. Archer, Norcini, Southgate, Heard, & Davies, 2008; J. C. Archer, Norcini, & Davies, 2005), and similar research is needed in osteopathy.

Patient feedback has been included in this assessment process, though. In the clinical mini cex examinations, the patients will be asked if they would fill in a patient feedback form following their experiences with that candidate. It is hoped that the majority of patients will fill in these forms (which of course cannot be compulsory for patients). From a whole day of patients a number of patient perspectives about the candidate should then be available, helping the assessment of various values and aspects of professionalism, and patient-centeredness of the encounter. This patient feedback is therefore an important component, and is another novel additional to osteopathic high stakes clinical assessment. This form was developed through consideration of several extant versions, and the Australian Medical Council's work in this regard should be noted. The form was trialled on real patients by several of the osteopathic contributors to its design, and the form was subsequently refined.

Assessment modes or tools not utilised in this process

Simulated patients

Although simulation is a rapidly growing area in medicine and its assessment (Michelson & Manning, 2008), it is not a practical option for osteopathic assessment, and so has not been considered in this process.

OSCE's

These are a long established component of clinical education and assessment, and despite their high reliability, are too resource demanding for this assessment process, and as they fail to address some aspects of performance which are better assessed through other methods, OSCE's were not considered an appropriate choice for this process (Casey et al., 2009; Khattab & Rawlings, 2008; C. Roberts, et al., 2006; Rushforth, 2007; Walsh, Bailey, & Koren, 2009; Wass, et al., 2001).

Long case

The long case has traditionally been found in many high stakes examinations in osteopathy, albeit with interrupted and variable interviewing, which is an adaption of the original tool design, and many proposed adaptations to the long case have not been suitably scrutinised for efficacy (Ponnamperuma, Karunathilake, McAleer, & Davis, 2009). Interviewing after case history taking, after examination and before treatment, and then after treatment as well in some cases can distort candidate thinking and may give them insights into errors or problems with the result that the performance subsequently observed is not one that reflects the candidates actual approaches in practice. Whilst the adapted form of the long case may have strong usefulness in a pre-entry level training programmes and formative assessment processes, it is not suitable for high stakes credentialing processes such as this, and although it has its supporters is not a good predictor of competence between or across cases especially with borderline candidates (Olson, 1999), and has problems with aspects of validity and reliability which compromise its use (Chierakul, Danchaivijitr, Kontee, & Naruman, 2010; Newble, 2004; Wilkinson, Campbell, & Judd, 2008).

In addition to the issues raised in the section on observation, the style of questioning that often accompanies a long case style of assessment in osteopathy resembles more a generalised oral viva, which suffers from poor standardisation in content and direction (Cobourne, 2010; Wass, et al., 2001), making it a difficult assessment to use appropriately. Also, the blue printing abilities of the long case are too low for it to be a valid instrument when used in isolation (Ponnamperuma, et al., 2009).

One aspect of the long case which is always held up in support of its continued use is that is allows a view of the 'whole' and as 'osteopathy is an integrated practice, splitting it up into component parts for assessment means that the candidate cannot be observed "pulling it all together". These are comments that commonly arise in osteopathic assessment discussions and arose within the focus groups held when developing the assessment process here. However, as the issues presented in this section (and throughout the report) were reviewed, a consensus view was reached that the long case benefits could be achieved by using other tools, and that other observational techniques may be more effective and reliable at reviewing performance, such as the mini CEX examination and DOPS (direct observation of procedural tasks). Improving the reliability of long cases involves increasing the examination time and number of cases substantially (Wass & Van der Vleuten, 2004; Wilkinson, et al., 2008), beyond that which would be practical for candidates or for resources in this type of assessment process.

Another aspect of the long case – the observation of case history taking is highlighted as being of particular use though (Dare, Cardinal, Kolbe, & Bagg, 2008; Wass & Jolly, 2001). Beyond being a very necessary part of the construct:

content component of diagnostic thinking, considering the nature of the consultation type is of interest as defining what constitutes an effective consultation and history taking has not received much attention in the osteopathic literature. If one wishes to focus on this section of performance it may be that defining the standards of practice for a consultation may require defining differing types of consultation, for example, Sturmberg describe several clusters or types of consultation (Joachim P. Sturmberg, Siew, Churilov, & Smith-Miles, 2009), and different skills may be required for each (Winefield, Murrell, Clifford, & Farmer, 1995). This could be an interesting area for future research in osteopathic practice.

Short case

This is not considered relevant as the Mini CEX and associated case discussions and self reflections will address any points the short case may have done (Wilkinson, D'Orsogna, Nair, Judd, & Frampton, 2010).

Long essay format

This is considered too subjective, and the other written format choices are much more suited to purpose than long essay format questions.

MCQ's – basic format types

As these assess only basic knowledge issues such as the bottom layers of Miller's triangle representing competence, they are considered inappropriate for use in this assessment process (Miller, 1990).

Performance

Having considered the nature of professional practice for assessment, and what is understood by the term 'capability', the issue of performance and demonstration of that practice comes to the fore. When one observes practice or assesses someone in some way, one is looking for evidence of the demonstration of the relevant standard of practice. Hence one is looking for something that compares with or is equivalent to an (agreed) example of what that performance should look like if it were to be observed, measured or monitored in some way. For this one uses a suitable assessment tool (of which there are many to choose from depending on what one wishes to assess). It is useful to note though that there is some correlation though between results from the assessment of competence and subsequent performance in practice (Tamblyn et al., 2007; Tamblyn et al., 2002; Wenghofer et al., 2009).

Performance indicators are essentially examples of practice that illustrate the various components of practice or capability that one is interested in and are strongly related to assessment tool choice. They need to be set at the relevant standard to be appropriate for use in assessment.

One performance indicator does not fit all

Agreeing the nature of those performance indicators is related to the subject of standard setting, which will be reviewed later in this report. In terms of assessment tool choice it must be understood that performance indicators are often context driven, and an example of a paediatric neurological examination might look quite different to that of an adult due to size of the patient, ability of the patient to contribute to the assessment, and the level of development

of the nervous system, for example. Hence it is difficult to have a finite set of 'examples' which can be used to compare observed practice. Also, capabilities are usually not performed in isolation and real practice involves engagement with a variable mix of capabilities depending on the nature of the patient, the case, the situation and many other factors. Each time another variable is introduced, this subtly alters the combination of capabilities that are required and are being observed. This also means that proscribing the nature of any given performance indicator is either not possible (to capture all potential possible combinations) or not advisable. Trying to describe a set of performance examples for each capability belies the fact that performance is highly context driven, as emphasised within the nature of the model of practice espoused by this report.

The inclusion of a set of performance indicators (one per capability or sub-element / criteria) within a document such as the Capabilities for Practice document is therefore not supported as they are not overly helpful for potential candidates for assessment, or members of the public or other interested parties to understand the process or required standards without significant and lengthy caveats being employed. One runs the risk that if a candidate is given one example of a particular indicator, when they are assessed this should be subtly revised in a way that can't be predetermined, and the candidate may fail to demonstrate the actual relevant standard of practice. Examples can be given, but should only be done so under caution, with the understanding that they are mutable and are by their very nature ***indicative*** only.

That said, the nature of practice that one adopts or includes is relevant for the development of performance indicators used in the assessment of that practice. This consideration has been discussed by Kemmis (Kemmis, 2005) who has noted the following differences between a technical rationalist perspective on performance indicators (stemming from a Model $_1$ view of practice) compared to a broader perspective (stemming from a Model $_2$ view of practice). See Figure 6.

Figure 6: Performance indicators related to practice model

Performance indicators / criteria image: clinical exam – watching candidate go through a new patient consultation	
Technist model 1 version	Broader model 2 image
Gathers case history including basic elements of medical history, pharmacology, onset, past history and family history	Gathers case history including perceptions of past care, desires for outcomes and drivers for presentation, that is personal to the individual and contains all relevant components of their personal health history
Examines patient with a range of physical procedures, and annotates records effectively	Recognises and performs culturally and socially reasonable approaches to examination that enable a critically reflective understanding of the nature of the patient's condition to emerge, in a time sensitive and person oriented manner
Formulates a differential diagnosis and osteopathic treatment plan, and delivers it	Develops a plan of care based on a critically reasoned and defensible diagnostic process which may require additional information and patient referral before treatment is given, and that the treatment given is one which the individual practitioner is capable of delivering and monitoring and which is relevant and beneficial to the patient and their presentation, and cognisant of the patient's personal and general health environments

Thus developing the performance criteria across the capabilities requires a careful consideration of the implications of the practice definition BEFORE any choice regarding assessment tools is made. Assessment tools are designed to

assess certain types of capabilities and it is very important to understand the type of capability being assessed in order to identify the most appropriate assessment tool. Even if a tool is theoretically best suited to purpose, its inclusion in any final assessment process is dependent on a variety of other factors, such as feasibility, reliability or validity, for example.

Once relevant criteria and capabilities are grouped together in combinations that reflect aspects of the practice you want to observe, people engaged in the assessment of that aspect of practice need to discuss what an example of that particular practice example would look like, **to ensure everyone is judging against the same standard**. It is important to note that:

- Each time a type of practice is considered, the range of capabilities being assessed would be subtly different and so each time the assessors would have to identify a slightly different example of that practice to capture the changed context.
- Specific performance indicators ***(i.e. the provision of examples of precisely how this should look when it is being observed)*** are therefore best identified by the assessing team, who should be chosen from experts in the field of practice that is to be assessed, and who are familiar with assessment design, assessment principles, and whose own standards of assessment capability have been scrutinised as fit for purpose.

Beyond this, even if the nature of all potential performance indicators can be well described in advance the decision also has to be made as to how many capabilities / performance indicators need to be met absolutely in order for the candidate to be deemed 'capable or fit for practice'. Is it appropriate that a candidate who demonstrates effective patient communication, appropriate skills in differential diagnosis and physical handling of patients can be deemed unfit for practice because their record keeping is not currently sufficiently robust – given that this is a skill that is more easily remediable than being completely un-knowledgeable as to appropriate physical examination procedures for example? This type of consideration is related to the subject of standard setting and setting the pass / fail levels, which will be reviewed later.

One last comment on performance indicators at this stage is that, as stated elsewhere in this report, many of the capabilities to be assessed have a time component in them – such as the ability of the candidate to review patient care over time, and to respond accordingly to emergent developments in the case, or to respond to outcomes when these differ to those expected, for example.

These capabilities cannot be assessed by a one-shot in time, time limited high stakes clinical examination event, and this must be born in mind when designing an assessment process that is to review OVERALL capability for practice.

Given that the choice of assessment tool is ultimately related to the nature of the performance indicators, for this reason, the project identified a number of osteopathic practitioners who were expert in assessment, in clinical practice or in educational and assessment principles, in Australia and New Zealand and utilised their expertise in a number of focus groups and meetings where their pooled understanding of Australasian osteopathic practice standards was used to identify suitable potential assessment tools where the development of specific performance indicators in detail could then be left to the assessment team in the final stages of the development of the process, and during its ongoing review.

It should also be understood that choice of assessment tool is in itself complex, and there is no one 'right' way to assess competence, capability or performance, instead a mutli-method strategy should be employed (Hamilton, et al.,

2007). Accordingly, as previously stated, the assessment process should be considered with respect to a variety of components such as those described within van der Vleuten's 'Utility' Index': a conceptual model which derives the assessment utility by multiplying five criteria of the assessment process: validity, reliability, educational impact, cost-effectiveness and acceptability. Having a multi-methods and multi-opportunity approach should benefit this utility though as it is felt to increase validity and reliability (Norman, Watson, Murrells, Calman, & Redfern, 2002; Wilkinson, 2007)

As Wilkinson (2007) states "Multiple snapshots, even if some are not totally in focus, give a better picture than one poorly aimed photograph'.

Scope

Although scope of practice is not the focus of this report, the subject does have some relevance in the design of an assessment process such as this. It is related to content blue printing and mapping, and one might imagine that one should assess a candidate for capability across all fields of osteopathic practice, such as paediatric care, care of the pregnant woman, geriatric care and those with chronic pain, as well as people suffering from sports injuries and post operative recovery, and rehabilitation for example (this not being an exhaustive list of the scope of osteopathic practice). There is also the issue of the technical tools that a practitioner has available to them as an osteopath. These vary considerably, and many are used only by a proportion of the profession, and this varies according to training history, country of origin, personal preference, and continuing professional development. Techniques include (but are not limited to) manipulation, articulation, soft tissue work, massage, stretching, exercise prescription, fascial unwinding, functional work, involuntary mechanism work, visceral techniques, and osteopathy in the cranial field. Other techniques that some osteopaths use include such things as trigger point therapy, dry needling, acupuncture, homeopathy, naturopathy (and the discussion of dietary and supplement use). The definition of these terms is outside the purpose of this report, even if such things were stable constructs, which they appear not to be. This report is also not capable of reviewing the level of evidence relating to any particular approach or type of care given, and related clinical outcomes or risk profiles.

So, when considering what to assess, the style of personal professional approach both in terms of technical tool kit used, and patient profile preferred (or experienced in) were important points. It was felt that assessing a person demonstrating all common styles of osteopathic technical tools was not appropriate – for example someone skilled and experienced in cranial work or functional work may have made a choice not to remain competent in manipulative techniques. Demanding their demonstration in these types of candidates is likely to result in an incompetent performance, but as this is not a part of that candidates real practice, is it reasonable to fail them on such performance? One has to bear in mind that the capabilities the candidates are being assessed in include sections on them making personal professional choices in patient management, and that their ongoing registration requires them to remain cognisant of their personal capacity in any given situation and that they be able to review their competence and also to consider and enact alternative and more appropriate care strategies or referrals if they are unable to treat, or if the patient is better served by consulting someone else. The capabilities also do not describe the technical tools to be utilised or the range of examination techniques that have to be used.

This is a difficult topic to resolve, but the assessment design team felt that one's own personal professional approach to practice was what was being assessed, as opposed to an entry level student, whose curricula determine that they are assessed in all aspects they were educated in. Hence candidates are not directed to demonstrate ALL possible modes of the "technical tool kit" during treatment, but they ARE directed to use appropriate and adequate examination techniques. It was felt for example that assessing any patient through indirect palpation only could be

considered too limited an approach for examination (and therefore differential diagnostic purposes) and so candidates are expected to demonstrate a range of examination techniques such that they are adequately able to assess a reasonable range of patient presentations through a variety of modalities.

Standard setting, benchmarking and considering pass-fail and borderline issues

Standard setting, especially for performance rather than just competence can be complex (Southgate et al., 2001), and has long been recognised as such (Meskauskas & Norcini, 1980). These authors make the point that it is "a psychological/social psychological process as well as a psychometric one. It rests upon a foundation of judgment."

Criterion referencing is used in this assessment process, which is typical for clinical assessments of this type.

Throughout this report, illustration of the design process, consultative processes and iterations of data that have been carried out, as well as trialling events of items, rating scales and discussions of performance indicators has been given. All the forms developed are specific to this assessment process. All criteria (and performance indicators which have been currently identified) were either taken directly from the capabilities document previously developed, or were designed as a furtherance of the expression of those capabilities. All the forms allow tracking back to identify which capability is being assessed by that particular tool and it is possible to audit throughout the assessment process ALL the capabilities which are being assessed, thereby providing a trail of evidence against each one included.

Standard setting procedures also relate to the type of assessment being considered but ALL standards reflect the subjective opinions of experts.

Common methods of standard setting include Angoff, Ebel, Hofstee, Borderline Group, and Contrasting Groups. As Downing states:

"The key to defensible standards lies in the choice of credible judges and in the use of a systematic approach to collecting their judgments. Ultimately, all standards are policy decisions." (Downing, Tekian, & Yudkowsky, 2006).

The assessment design team has considered a variety of standard setting processes, and the challenge remains the small number of assessments that will actually be done. Unlike medicine where many hundreds or thousands of assessments can be done across a short time span, across various locations, the assessments in high stakes osteopathy will always be small cohorts. Hence the statistical aspects of the standard setting processes can be compromised. However, smaller assessments may be served by a variety of simpler methods of standard setting such as modified Angoff and Ebel methods (Yudkowsky, Downing, & Wirth, 2008) and various alternatives will continue to be reviewed for use in this assessment process.

The assessment process will then use a variety of standard setting methods but as they depend on actual assessments being performed such analysis is not yet available for circulation. It should be noted that the mini CEX forms were trialed, as were the written papers (the key features and extended matching versions), and analysis of these results is being undertaken.

For the practical observational components, and the subjective judgement components of the portfolio tasks, and case based discussions, reliance is also put on assessor training and familiarity with the assessment tools, their criteria and the relevant performance indicators. The assessment process is committed to continuously review assessor familiarity and compliance with these elements through the training and audit processes being implemented. As many of our potential assessors are now very conversant with the process and its tools and have participated in many of the discussions on performance criteria, the assessment design team feel that the choice of panel members to participate in the standard setting is robust – an important factor in standard setting (De Champlain, 2004) - including as it does these trained assessors as well as general experts in the field of osteopathic practice, teaching and assessment.

Assessor and mentor training

As discussed training and auditing procedures for assessors are being utilised in this assessment process.

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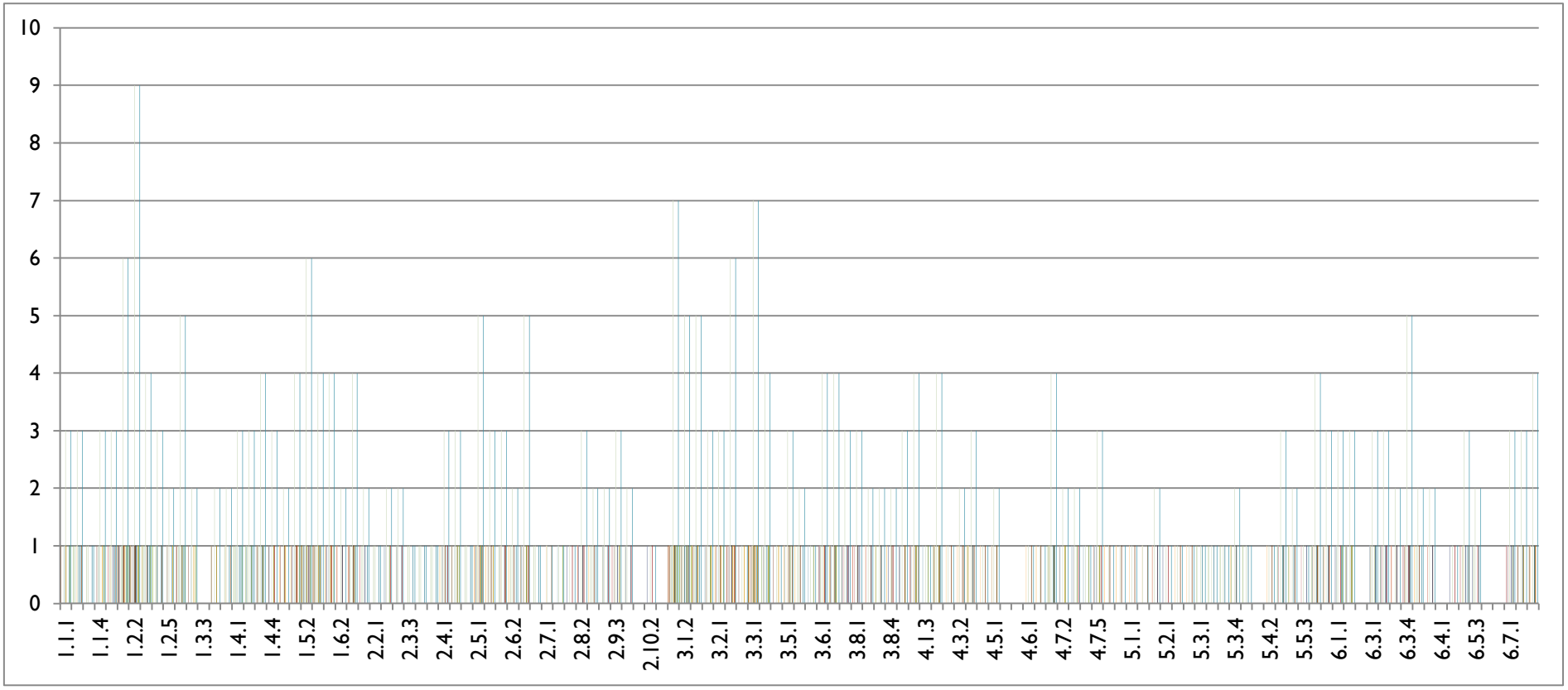
Appendix 1: Frequency of capabilities assessment across tools in all stages of the Australian Overseas Assessment process



Appendix 2: Mapping of the assessment of the various Capabilities against assessment tools utilised across each stage in the Australian Overseas Assessment Process

Assessment tool mapped against capabilities	Modified essay	Key Features	EMQ	Learning needs analysis	Multi source feedback	Case analysis reflection	Case based discussion	Critical incident report	Self learning report	Inter-professional Learning Report	Supervisor report	Mini CEX	DOPS	PtFB	Case based discussion	Record review
1.1.1 Critically uses a variety of information retrieval mechanisms		1										1			1	
1.1.2 Compiles a health care record that is personal to the individual						1						1				1
1.1.3 Incorporates bio-psychosocial components within the health record												1				
1.1.4 Ensures patient-centred orientation of case analysis							1					1			1	
1.1.5 Ensures full recording of osteopathic physical examination and palpation findings as part of a personal health record					1							1				1
1.2.1 Working hypotheses are compared and contrasted, using information retrieved, to identify a suitable working diagnosis (including concepts of cause and maintaining factors and current stressors)	1	1	1				1					1			1	
1.2.2 Uses a systematic osteopathic and medical differential diagnostic process	1	1	1	1	1	1						1	1		1	
1.2.3 Makes appropriate arrangements to receive additional information as required, such as referring patient for imaging, or corresponding with healthcare practitioners for test results and other relevant details				1		1						1			1	
1.2.4 Where diagnosis and patient evaluation are not able to be completed, plan of care is adapted appropriately	1											1				1
1.2.5 Critically selects and adapts appropriate clinical examination techniques during their patient evaluation, relevant to the patient's condition and tissue responses, including cultural, religious, social and personal constraints												1	1			
1.3.1 Plan of care is negotiated with, relevant and appropriate to person's presenting complaint					1	1	1					1			1	

Assessment tool mapped against capabilities	Modified essay	Key Features	EMQ	Learning needs analysis	Multi source feedback	Case analysis reflection	Case based discussion	Critical incident report	Self learning report	Inter-professional Learning Report	Supervisor report	Mini CEX	DOPS	PtFB	Case based discussion	Record review
1.3.2 Plan of care is within the context of the person's general health							1								1	
1.3.3 Plan of care evolves as required throughout a person's life according to their changing needs and mindful of their changing mental and physical attributes as they age																
1.3.4 Changes to a patients physical or mental health are reviewed over time, whether related to their presenting complaint or not, and any relevant action taken accordingly						1	1									
1.3.5 Plan of care and supporting evidence is appropriately noted in patients records												1				1
1.4.1 Prognoses are developed, and appropriate care is determined on that basis						1						1			1	
1.4.2 Appropriate outcome measures are utilised to monitor progress which is either a negotiated patient centered outcome, or by the use of an appropriate valid and reliable outcome instrument						1			1			1				
1.4.3 Practitioner reviews progress and elicits feedback on an ongoing basis					1	1	1					1				
1.4.4 Practitioner recognises when outcomes differ from those expected, can identify why and acts accordingly						1	1	1								
1.4.5 Maintains a commitment to delivering well integrated and coordinated care for all patients, including those with multiple, ongoing and complex conditions				1			1									
1.5.1 Case review is capable of identifying if information is lacking or needs investigation				1			1	1							1	
1.5.2 Practitioner responds accordingly to cues emerging from case review	1	1				1		1				1			1	
1.5.3 Recognises when to withdraw or modify plan of care		1				1	1					1				

Assessment tool mapped against capabilities	Modified essay	Key Features	EMQ	Learning needs analysis	Multi source feedback	Case analysis reflection	Case based discussion	Critical incident report	Self learning report	Inter-professional Learning Report	Supervisor report	Mini CEX	DOPS	PtFB	Case based discussion	Record review
1.6.1 Recognises and remains open to clinical challenges and uncertainty				1			1	1							1	
1.6.2 Adjusts plan of care and professional behaviour on an ongoing basis in response to such challenges				1	1											
2.1.1 Understands cultural and social factors relevant to communication and management of the individual				1	1		1					1				
2.1.2 Communication is sensitive to and respectful of these factors					1							1				
2.2.1 A variety of questioning strategies are used, which are appropriate to the person and their cultural and psychosocial needs												1				
2.3.1 Communication is adapted to individual needs, such as in paediatric care, care of those with mental health issues, intellectual disability or language difficulties									1					1		
2.3.2 Where communication barriers exist, efforts are made to communicate in the most effective way possible												1		1		
2.3.3 Deploys a variety of communication modes as appropriate												1				
2.3.4 Verbal and non verbal communication is adapted to the needs and profile of the individual												1				
2.3.5 Practitioner can employ and respond to non verbal cues as appropriate												1				
2.4.1 Uses appropriate information gathering techniques to enable the patient to communicate their concerns, needs and goals				1								1		1		
2.4.2 Recognises the impact of patient concerns for clinical analysis and plan of care						1	1								1	
2.4.3 Employs counselling skills appropriate for osteopathic practice in the context of the osteopathic plan of care												1				
2.5.1 Risks and benefits for management are identified and appropriately recorded				1			1		1			1				1

Assessment tool mapped against capabilities	Modified essay	Key Features	EMQ	Learning needs analysis	Multi source feedback	Case analysis reflection	Case based discussion	Critical incident report	Self learning report	Inter-professional Learning Report	Supervisor report	Mini CEX	DOPS	PtFB	Case based discussion	Record review
2.5.2 Appropriate informed consent is obtained in the light of risks and benefits being explained to and understood by patient (or their representative or carer)				1								1	1			
2.6.1 The goals, nature, purpose and expected outcomes of osteopathic intervention are discussed and agreed												1		1		1
2.6.2 Appropriate warnings regarding possible adverse effects are identified for the person and discussed				1								1				
2.6.3 Options for the person's self care are identified and discussed, such as exercise, diet, lifestyle and workplace ergonomics						1	1		1					1		1
2.6.4 Prepares the patient for 'follow up' where appropriate												1				
2.7.1 Gathers information regarding the person's previous health care experiences of medical and allied health services																1
2.7.2 Recognises where this creates particular concerns for the person regarding their ongoing care, and acts accordingly															1	
2.8.1 Acts appropriately in situations involving personal incompatibility with the patient								1								
2.8.2 Manages clinical challenges and uncertainty within therapeutic relationships appropriately				1	1			1								
2.9.1 Recognises if patient trust or safety is undermined and acts accordingly				1								1				
2.9.2 Ensures appropriate levels of patient confidentiality throughout the osteopathic management of the patient												1		1		
2.9.3 Continuously reflects on the respectful patient-centeredness of the osteopathic management of the patient					1							1	1			
2.9.4 Builds an effective patient rapport, treatment agreement and therapeutic alliance												1		1		

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2.10.1 Communicates effectively through, or with, a patient's representative, carer, or family member as required																
2.10.2 Ensures appropriate consent is gathered on behalf of the patient and that effective review of communication is undertaken								1								
2.10.3 Understands when a representative, carer or family member is required to communicate on behalf of, or in conjunction with, the patient , and acts accordingly																
3.1.1. Understands and utilises an osteopathic philosophy in their examination, treatment and overall care of a person		1		1	1	1	1					1			1	
3.1.2. Arrives at an appropriate management plan reflecting these osteopathic philosophies	1					1	1					1				1
3.1.3 Can identify the components of a plan of care that are in addition to (or instead of) osteopathic manual treatment, and acts accordingly	1			1		1	1					1				
3.1.4 Ensures osteopathic manual skills are appropriate to meet professional requirements									1			1	1			
3.2.1 Understands how manual osteopathic techniques as employed by osteopaths can interact with the body's physiological, circulatory, neuro-endocrine-immune, homeostatic and emotional environments and uses this knowledge within their osteopathic plan of care				1			1								1	
3.2.2 Selects and adapts appropriate osteopathic techniques during their patient evaluation and treatment, relevant to the patient's condition and tissue responses, including cultural, religious, social and personal constraints				1	1		1						1	1		1
3.2.3 Recognises that factors being or requiring treatment can develop and change over time, and acts accordingly							1									

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3.3.1 Conditions or situations that are not amenable to osteopathic intervention are identified, and appropriate action taken	1	1		1			1					1	1			1
3.3.2 Conditions or situations that require adaptation of manual techniques and manoeuvres employed during a plan of care are identified, and appropriate action taken						1						1	1		1	
3.4.1 Where ongoing care of these types of patient (as in 3.3.1) is given, the management plan is adjusted accordingly							1									
3.5.1 Obtains information and advice from suitable sources (osteopathic or other) as appropriate				1					1							1
3.5.2 Continuously gathers evidence to monitor for changes in a patient's circumstance, mental or physical condition that might require changes to their ongoing care				1								1				
3.5.3 Adapts ongoing care appropriately									1							
3.6.1 Recognises any potential conflicts that their personal professional approach may have for the patients plan of care, and modifies it appropriately							1	1			1	1				
3.7.1 Conditions or situations where the knowledge and management skills of the practitioner are insufficient are identified and appropriate alternative action is organised and taken				1		1	1		1							
3.7.2 Seeks out opportunities to enlarge personal professional capabilities						1		1			1					
3.8.1 Uses ongoing education, professional reading, discussion with peers, and reflection on treatment and management outcomes to continuously improve skills and efficacy				1	1						1					
3.8.2 Critically evaluates evidence by applying a knowledge of research methodologies and statistical analysis										1	1					

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3.8.3 Incorporates an understanding of the strengths and limitations of an 'evidence-based' approach to treatment				1		1										
3.8.4Engages in quality assurance practices				1				1								
4.1.1 Identifies and acts upon those factors which are the practitioner's responsibility towards the person's welfare							1	1	1							
4.1.2 The 'gate-keeper' and 'health-screening' roles of an osteopath as a primary healthcare practitioner are performed appropriately					1		1		1							1
4.1.3 Considers issues relating to patient's family and / or carers if appropriate									1							
4.2.1 Identifies situations where other healthcare professionals may be required to perform these roles, in whole or part and acts accordingly						1	1			1		1				
4.3.1 Effective and informed working relationships are established and maintained with other health and community services or providers										1						
4.3.2 Written and verbal communication with other health and community services follows accepted protocols and procedures										1						1
4.4.1 Practitioner identifies suitable health and community services from which the person may benefit				1		1				1						
4.4.2 Practitioner facilitates where appropriate the person's access to these services										1						
4.5.1 Practitioner maintains awareness of appropriate guidelines, ethical standards and other publications as issued by appropriate bodies and authorities									1	1						
4.5.2 Practitioner ensures compliance, where required, with guidelines and ethical standards																
4.5.3 Practitioner issues advice within these guidelines and ethical standards																

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4.6.1 Costs associated with healthcare for the patient, osteopath and healthcare system are continuously monitored and analysed										1						
4.6.2 Maintains a commitment to efficient and equitable allocation and use of resources				1												
4.7.1 Indentifies appropriate strategies concerning health education, public and occupational health, disease prevention for patient, or refers appropriately						1			1	1		1				
4.7.2 Ensures plan of care reflects commitment to rehabilitation and amelioration of pain and suffering							1		1							
4.7.3 Ensures emphasis in patient education and involvement in plan of care conception and delivery									1					1		
4.7.4 A commitment to improving the health literacy of the patient is maintained									1							
4.7.5 Maintains a commitment to preventative care strategies							1		1					1		
4.8.1 Able to perform basic life-saving and first aid				1												
4.8.2 Where regulatory authorities require first aid certification that this is maintained appropriately				1												
5.1.1 Effective network relationships are established and maintained										1						
5.1.2 Accepted protocols for written and other media records are followed to ensure information is relayed accurately and effectively.																1
5.1.3 Recognises the value of a team-based approach within professional life										1	1					
5.2.1 Barriers to communication are identified and addressed where possible, or alternative strategies employed as required								1								
5.2.2 Engages in intra and interprofessional education										1						

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5.2.3 Is committed to promotion to other health professionals and the general public of the (critically appraised) osteopathic contribution to healthcare										1						
5.3.1 Appropriate practitioners and providers are identified for co-management or referral for the patient						1										
5.3.2 Appropriate protocols, are followed when co-managing a patient in any given situation, to the benefit of the patient						1										
5.3.3 Collaborative working arrangements with others are reviewed to ensure an efficient team-based approach to care of the individual						1										
5.3.4 Appropriate referrals are made to other practitioners, including osteopaths, based on knowledge of presenting condition and management options and own skill levels				1		1										
5.3.5 A commitment to ensuring continuity of care for the patient is maintained						1										
5.4.1 Where the osteopath continues to be one of the patient's carers, communication within the care network is maintained at an effective level to ensure patient care is optimised																
5.4.2 Fosters and supports clinical training opportunities that support interdisciplinary learning										1						
5.5.1 Undertakes appropriate continuing lifelong learning to ensure currency of understanding of osteopathic philosophy and professional ethos						1			1		1					
5.5.2 Critically reflects on the relationship between osteopathic practice and other healthcare systems, and the impact this has for overall patient care						1				1						
5.5.3 A commitment to contribute to the guiding and mentoring of fellow and future osteopaths as they become guardians and custodians of the profession's philosophies,											1					

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knowledge and skills																
5.6.1 Undertakes appropriate continuing lifelong learning to ensure awareness of other healthcare practices and approaches to healthcare and patient management, including mental health issues						1		1	1	1						
5.6.2 Critically reflects on the impact this awareness has to delivery of overall patient care						1		1		1						
6.1.1 Strategies to ensure ethical conduct of self and others are identified and utilised where appropriate								1				1			1	
6.2.1. The need for improved skills and knowledge to maintain effective and appropriate care of the individual are identified						1	1		1							
6.2.2. Where the practitioner has employees, they are provided with opportunities and understanding to maintain and improve relevant skills and knowledge																
6.3.1. Time management strategies are implemented									1		1	1				
6.3.2. Practitioner recognises when performance and care is not optimal and takes appropriate action						1		1			1					
6.3.3. Ensures own personal health is appropriate to professional life				1	1											
6.3.4 Maintains appropriate professional boundaries					1			1		1	1	1				
6.3.5 Maintains appropriate balance between needs of practitioner, patient, community and healthcare services				1								1				
6.3.6 Encourages a good work / life balance, individually and within professional teams and networks										1	1					
6.4.1 Opportunities to improve and maintain physical environment for care and employment (where required) are identified and taken																

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6.5.1 Maintains awareness of legal and regulatory requirements and operates within them								1								
6.5.2 Ensures all record keeping is in accordance with current best practice					1							1				1
6.5.3 Critically appraises effectiveness and appropriateness of all types of communication and record keeping								1				1				
6.6.1 [Workplace and workforce related] Risk factors are identified and appropriately managed																
6.6.2 'Health and Safety' and waste disposal procedures follow acceptable protocols, including environmentally sensitive practices																
6.7.1 Maintains ongoing access to (and ability to use) relevant professional resources such as journals, books, web-sites, various electronic media, and intra- and inter-professional networks, and peer review					1				1		1					
6.7.2. Understands major ongoing trends and developments in osteopathy					1	1	1									
6.7.3 Understands major ongoing trends and developments in the broad health care field					1	1	1			1						