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Report on Research Project to develop a model of osteopathic capabilities for practice and a model of assessment for overseas applications to the profession.

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Overview of report

This report sets out the research undertaken to develop a set of Capabilities Required for Osteopathic Practice, and a model of Assessment for Overseas Osteopaths. This model indicates several versions of assessment tools and processes that could be applied, and discusses their pros and cons / strengths and weaknesses. It also gives a review of the current assessment processes used within Osteopathy in Australasia, and comments on pragmatic choices required when constructing an actual assessment process. The report is split into two sections, with appendices. Part One covers the development of the Capabilities for Osteopathic Practice and an introduction to assessment and the steps required to develop a relevant assessment strategy. Part two covers an introduction to assessment in the health professions, discussion of various assessment tools and their usage, and a review of the process to develop an assessment tool strategy for examining overseas applicants for registration to the osteopathic profession in Australia. Part two also includes a proposed model for this assessment.

Note on the Capability Framework and assessment proposals.

The capabilities document and the models for overseas assessment have been developed following extensive consultation. They have not as yet been trialled in real-life exam situations or assessment of overseas candidate events. They should be read in such a context. The research team believe they form a reasonable professional base-line for further development of actual capabilities and assessment strategies by relevant parties such as the Registration Boards for the Osteopathic professions in each State and Territory, or by any national peak body for osteopathic assessment and accreditation once these are operational.

PART ONE

Context.

Skilled migration continues to be an important issue and there is increasing emphasis on fair assessment of candidates as against mere gate-keeping, whilst retaining a strong commitment to public safety. It is against this background that national Health Registration Boards are being developed, in order to achieve national consistency in policies. A key part of such policies is a need for professional standards and a framework of capabilities for each profession that can be used to enable assessment of competence of those entering the profession, and to ensure that there is not incompatibility between local and overseas entry to the profession.

In the light of the Council of Australian Governments' initiative to develop a national Health Registration Board for various professions, including osteopathy, the issues of accreditation and skills assessment for overseas professionals are likely to be revisited. As there is no current national policy for skills assessment adopted by all of the registration boards for osteopaths in Australia, it is timely to consider the nature of osteopathic competencies and capabilities, and to research the currency of existing policies, documentation and assessment programmes for overseas trained osteopaths. As any Health Registration Board is likely to also tie a continuous professional development requirement to registration, it is also timely to consider the lifelong learning needs of osteopaths and their ongoing learning requirements in order to maintain appropriate professional skills for practice. Although this report does not discuss lifelong learning issues the capabilities developed and the discussion on assessment would be relevant to those who may be tasked to look at this aspect.

This research is also very timely as, not only is there no current national policy for skills assessment, there is no national standard, policy or model which states competencies and capabilities for osteopathic practice. There is, however, a nationally adopted policy document for accreditation of osteopathic educational institutions and programmes which contains various standards that courses should attain. But only some of these relate to graduate outcomes, and these are not currently in a format which is transferable into a national capability framework or assessment policy. This lack of national standards for practice is limiting both for public safety, regulatory policy and for identifying the ongoing learning needs of osteopaths.

Research Process

Phase one: To investigate current practice with respect to skills assessment for overseas professionals and to develop a set of competencies and capabilities which meet current and future needs for the profession.

Phase two: To explore and develop a best practice model for skills assessment based on an identification of assessment strategies that will best reflect a candidate's skills against the above set of competencies and capabilities.

Methodology:

A qualitative study was conducted as outlined below.

Phase one: Development of Capabilities Framework

Document recovery and review of current policies regarding skills assessment.
The data was drawn from the Australian Osteopathic Registration Boards, international osteopathic boards, national and international health professions, bodies such as the National Office for Overseas Skills Recognition (NOOSR), and other relevant documentation.
Drafting / consolidation of current data leading to a proposal(s) for a set of competencies.
Focus groups drawn from members of the osteopathic profession were held in Brisbane, Sydney and Melbourne to progressively evolve a draft set of capabilities and to reach consensus on the shape of the overall model.
Stakeholders / focus group members included representatives of the Osteopathic Registration Boards, Australian Osteopathic Association personnel and osteopathic experts in the field, and general members of the profession.
At the end of this phase the researchers developed a document for further consultation.
A draft model was in fact circulated to some focus group attendees inviting further comment and reflection.
Circulation to a wider sample of the osteopathic population was undertaken, through an AOA email survey, inviting comments and feedback.
Feedback was gathered at all stages, numerous iterations of the data were performed and a final model for competencies and capabilities required for practice has now been developed, ready for dissemination to interested parties. This is found in the separate document: Capabilities Required for Osteopathic Practice.

Phase two: Development of Assessment Strategies

Consideration of best practice methods for the assessment of the agreed final competencies.
In this phase consultation with groups of experts in the field of education and medical competence assessment was used. Various meetings, telephone discussions and email correspondence were conducted
A model or models was outlined, for consultation with osteopaths in various focus group meetings, and with those experts in osteopathic assessment that agreed to participate.
Representatives from all registration boards and other bodies were invited to participate. A telephone conference between individuals from the WA and NZ Registration Boards was included as well as discussion with other relevant individuals.
A model assessment strategy has been developed, with discussion of various assessment tools and an analysis of their applicability.

Issues in data gathering and reaching consensus.

Generally, this went smoothly. However, there were initial delays in receiving nominations to attend focus groups. This delayed the early stages of the project. Once this problem was overcome, consultation was achieved from a broad and extensive sample of the profession across Australasia. One osteopathic education institution declined to participate in any stage of the project despite numerous invitations. However, due to the widespread nature of the rest of the consultation this omission from Victoria University has not been felt to impact negatively on the project and its outcomes. Generally the focus groups ran smoothly and provided much

constructive input. They were most productive when participants had worked on material distributed prior to the focus group. In one case prior distribution of material to all participants was not logistically possible which was discussed in the meeting. The research team felt this did not negatively impact on the overall process.

Contributors.

Academics from three of the four Australian Universities and from the one New Zealand University delivering osteopathic programmes participated in the process. Representatives from four Australian Osteopathic Registration Boards and from the one New Zealand Board participated in the process. Four assessment experts from the Chiropractic and Physiotherapy professions and one from Nursing and Midwifery participated directly, and detailed information was sought from a further four allied health professions involved in assessment of overseas applicants. Experts in medical assessment were consulted and direct involvement from five of those medical education and assessment experts was highly regarded. Thirty one osteopaths took part in five focus groups held across Australia and twenty nine other osteopaths provided feedback after the wider consultation processes.

Professional Standards, Competencies, Capabilities

A full glossary of terms for competence, capability, standards and so on, is provided in the appendices. A brief description of the main terms is given below:

Domain – a convenient grouping of major professional practice tasks / activities used for the purposes of describing practice.
Capability – a more inclusive, flexible and 'future-oriented' (can be changed) characterisation of practice than competence
Competence – an overall term for professional activity linking capability, performance and standard (or performance)
Element – lowest identifiable logical and discrete sub-groupings of actions

Comparison of Competency Standards for Various Health Professions

There is some diversity in the conceptualisation of professional competence, as the following comparative tables suggest (some examples only):

BODY	DOMAINS	STANDARDS / UNITS	COMPETENCY / ELEMENTS	CAPABILITY	DESCRIPTOR	OUTCOME STATEMENT / PERFORMANCE INDICATORS / CRITERIA
Australian Nursing and Midwifery Council (ANMC) – Registered Nurse	4	19				Numerous
ANMC – Nurse practitioner	0	3	9			Numerous indicators
Australian Physiotherapy Council	0	9	41 elements			Numerous criteria
Chiropractic and Osteopathic College of Australasia	4	10	35 elements			Numerous performance indicators

Comparison of Existing Standards in Osteopathy

BODY	DOMAINS	STANDARDS / UNITS	COMPETENCY / ELEMENTS	CAPABILITY	DESCRIPTOR	OUTCOME STATEMENT / PERFORMANCE INDICATORS / CRITERIA
General Osteopathic Council, UK	0	0	0	16	16	104 outcome statements
Osteopaths Registration Board of Western Australia	0	10 (skills)	50	0	0	0
Osteopathic Council of New Zealand	6	17	34 (elements)			

So there is a variety of approaches adopted by various professions for their competency standards framework. In developing our framework we have chosen to use domains, capabilities, elements and criteria. This basic format is the one proposed for professions in the original National Office of Overseas Skills Recognition (NOOSR) documents (Gonczi et al. 1990, Ash et al. 1992, Heywood et al. 1992, Gonczi et al. 1993). This format for professional standards has demonstrated its worth over many years of use by assorted professions. For instance, the Optometrists Association of Australia developed standards based on this format in 1993. These standards have proved their value to the profession in a variety of ways. As part of their ongoing usefulness, they have been revised several times since 1993. The most recent revisions have reflected optometrists gaining the capacity to prescribe topical therapeutic ocular medication (Kiely et al. 2000). The perceived success of the Australian optometry standards is evident from the World Council of Optometry adopting these standards as the preferred format for optometry standards world-wide. A further example of this format for professional standards proving to be highly useable is provided by specialist accreditation of lawyers. In 1994, the Law Society of NSW developed performance standards for specialist accreditation in several areas of the law (e.g. immigration law, family law, criminal law, etc.). Candidates for accreditation are required to satisfy the standards in three diverse assessment situations (Gonczi et al. 1994). The success of the scheme led to an expansion in the number specialisations. In some specialist areas, the standards have been adopted at the national level.

As the previous comparative tables suggested, there is no single universally agreed way of defining competencies, capabilities and standards. However, there is now a consensus in the literature that the term ‘capabilities’ is more reflective of professional life than the narrower term ‘competencies’. Hence, while the terms ‘competence’ and ‘competency’ are still applicable to various elements within the standards, we use ‘capability’ to capture the holism of various elements being simultaneously implicated in actual professional performance. As well there is consensus that identifying domains of practice, which are integrated within a professional’s activities, is more relevant than working with atomistic lists of professional tasks or attributes.

Phase One Outcome

Capabilities for Osteopathic Practice.

We have identified 6 domains, each with a number of elements, with each element having a number of criteria which more fully illustrate the domains. The domains are:
1 – Clinical Analysis
2 – Person Oriented Care and Communication
3 – Osteopathic Care and Scope of Practice
4 – Primary Healthcare Responsibilities
5 – Professional Relationships and Behaviour
6 – Professional and Business Activities

The full list of domains, elements criteria and accompanying descriptors are to be found in the accompanying document ‘Capabilities for Osteopathic Practice’. This also includes a preamble which sets out the principles underpinning the capabilities as a whole and contextualises how they should be read.

Capabilities / competency standards and other professional requirements

In a regulatory environment the experience of some other professions suggests that the capabilities for practice may be complemented by codes of practice or ethics. While these may both be derived in part from the capability framework, they will also take into account other considerations such as statutory requirements and ethical guidelines. While such codes are not part of a capability framework in themselves they are complementary in that they can suggest cues or indicators for assessment of some aspects of the capabilities.

There may be a need within the osteopathic profession to develop such codes in the future as they are a feature of many health-related occupations, including medicine.

Phase Two Outcome

Assessment Model – Overseas Applicant Assessment.

Our project has identified a model for the assessment of overseas applicants for migration and registration purposes. A 'model of assessment' means a framework for assessment, which includes variations within it depending on particular assessment purposes and resource constraints.

Full discussion of the model, choices made, possible alternatives, and pragmatic considerations are given below. It is not possible to give a 'one size fits all' assessment strategy, as there are many factors to be taken into account by the authority potentially using the assessments, such as the newly formed Australian Osteopathic Council or any National Registration Board.

In other words, what constitutes reasonable cost, preferred range of assessment tools and so on has to be determined by such a body. This report outlines the key features of such a framework and identifies the main design considerations in implementing the framework. Thus the information and discussion in this report will inform any such authority to allow it to determine the final arrangement of assessment for any given purpose.

Other uses

Whilst this report and research project was focused on using the developed capabilities within an assessment model for overseas applicants for osteopathic registration, there are many ways that a set of capabilities can be used, such as course accreditation, curriculum planning and continuing development of osteopaths. We have included a brief commentary on these below, for information as it is appropriate that the same capabilities / standards be used within curriculum, accreditation, registration, lifelong learning requirements and overseas assessment processes

How to use the capabilities within assessment – general comments

All assessment should be framed in terms of the capabilities and competences required. The capability framework sets out the main parameters that define assessment processes and content. All assessment activities must be able to be represented within such a framework. However, it is not possible for a capability

framework to unambiguously define detailed criteria and operational aspects of assessment as these are dependent on the specific purpose, which can vary. For example, assessment used to make judgements about students at intermediate stages before full professional competence will necessarily require different criteria for those used in assessment of overseas professionals.

How to use the capabilities within accreditation arenas

Australia already has a national scheme for course accreditation, constructed through ACORB, which has identified a number of Standards required of Osteopathic Programmes.

We have included a cross-referencing / mapping of the current (2008) ACORB Standards against our proposed set of Capabilities, to illustrate that all required standards are met within the new Capabilities.

It is appropriate that the same capabilities / standards be used within curriculum, accreditation, registration, lifelong learning requirements and overseas assessment processes. This alignment already happens in a number of other professions, and where this does not occur, moves towards that outcome are planned.

Note: the standards as contained within the 2008 ACORB Accreditation document are not in an appropriate format for assessment, and therefore could not have been used as part of a model for assessment of overseas osteopaths.

How to use the capabilities within curriculum design arenas

Curriculum design is framed by capability statements in similar ways to assessment. Any curriculum represents a means of developing the capabilities of a professional. However, there are very many different ways for a curriculum to be organised to achieve any given set of outcomes. The capability framework does not determine this as it is appropriate for different programs to offer different emphases and pathways whilst meeting the same core ends.

On no account should capability standards or statements be equated with entry-level curriculum. A curriculum is a process that happens over a period of time (years in the case of undergraduate professional programs), whereas a competency framework is a statement of capability for effective practice. During the process of a curriculum being followed, candidates will undergo a variety of assessments focused on their progress against various outcome requirements that are, at best, only distantly related to the profession's capability standards. Capability or competency frameworks therefore cannot be easily developed from curriculum documents, but curriculum documents need to be informed by competency frameworks, particularly with respect to the later stages of an entry level course.

How to use the capabilities within registration and ongoing education and learning arenas

Using capabilities for professional registration is very similar to that for overseas skills assessment. Both aim to make a judgement at a given point in time about whether a person is competent to practise. It is important to note however, that someone who is minimally able to be registered is not the same as the fully operating professional represented in the statement of standards and capabilities for the profession. A

separate process of determining what are the minimum necessary attributes for registration or recognition is needed. This would be derived from a coherent sub-set of the overall capabilities excluding only those items for which professional practice is needed to reach the final levels required.

Most professions no longer accept that completion of an undergraduate or even postgraduate qualification is sufficient for professional practice. Typically, there is a period of at least one or often more years during which a person is provisionally registered but undertakes systematic supervised practice. Much of the development required of a professional cannot be undertaken without engaging in practice itself.

The capability framework therefore acts as a guide both for initial or provisional registration and for making judgements about full registration. In addition, it can be used to guide maintenance of registration over time and the ongoing continuing professional learning required for continuing competence.

Overseas assessment

Current assessment processes

Osteopathic and other health professions' processes were reviewed. The osteopathic processes currently used in Australia and New Zealand are briefly outlined below. Other osteopathic overseas examinations such as those in the UK have also been explored for the purposes of this project, as well as processes from other non-osteopathic professions in Australia such as chiropractic, physiotherapy, dentistry, medicine and optometry.

Osteopathic overseas assessment processes in Australasia

Below is a short summary of the processes used by the three jurisdictions currently performing assessments for overseas osteopaths, in Australasia (the headings below are slightly adjusted from the original processes to help clarify the range of stages in each jurisdiction). It is intended only to highlight the main components of each process, not discuss them fully, nor compare and contrast issues such as reliability, validity and so on. Feedback from various sources has been that each process has administrative problems, and seemingly the process of the examination as a whole may be usefully reviewed by all jurisdictions. Commentary of the overall suitability of the processes currently used by these three jurisdictions is provided later within a discussion of assessment tools in general.

Note: under the category 'desk-top audit' items such as police clearance checks and English language requirements are included in various jurisdictions, but have not been separately listed out below. Qualification verification and curriculum review are also used by the various jurisdictions but, these are essentially part of an eligibility component, and so do not strictly form part of the assessment process. The curriculum review component varies considerably between the 3 jurisdictions and is further discussed later in the report.

Victoria

1) Desktop audit	2) Multiple choice paper	3) Clinical exam	4) Viva Voce	5) Clinical practicum
		Real patients	Case based discussion	Similar to short case

Western Australia

1) Desk top audit	2) Written Case studies / discussions	3) Multiple choice paper	4) Modified OSCE / OSPE	5) Viva voce
Educational biography	Including review of referral letters and other communications		Standardised patients – similar to short case	
	Includes reference to applicants' real cases, and includes review of actual anonymised case notes			

Other Australian States and Territories

They defer to Victoria for the assessment process (the various assessment components to consider competence) and utilise the outcome within their own registration requirements, as each legislative environment is slightly different.

New Zealand

1) Desktop audit	2) Clinical Exam (real patients)			

Requirements for a framework of overseas assessment

It should enable the profession to make a judgement about whether an applicant is competent to practice and be registered as an osteopath in Australasia.
It should be affordable, both for the applicant and the profession
It should not place unreasonable demands on the applicant e.g. travel to Australia or New Zealand (at least not for the preliminary stages)
It should be based upon an understanding of assessment issues and practices in related professions
It should be seen to be fair and to reflect what osteopaths do

Assumptions
That it assesses everybody from everywhere (or not!). That raises the issue of whether or not there is a competent authority or not in that locale.
That whatever testing and documentation occurs or is required is done using the English language
That the process is applicable to both Australia and New Zealand
Trans Tasman Agreement

With reference to the Trans Tasman agreement, readers may be interested to refer to the 2003 document: A Review of the Mutual Recognition Agreement (MRA) and the Trans Tasman Mutual Recognition Arrangement (TTRMA) produced by the (then) The Australian Council of Physiotherapy Regulating Authorities Inc as a submission to the Productivity Commission. Note: ACOPRA and the AECOP (Australian Examining Committee for Overseas Physiotherapists) who are referred to in this document have both been superseded by the Australian Physiotherapy Council, and are no longer extant. It would be timely to undertake a review of the Trans Tasman agreement for the osteopathic profession, if this is not already underway.
Note: some aspects of the capabilities applied in the two osteopathic jurisdictions (Australia and New Zealand) might be identified differently in codes of practice that each authority might have, such as cultural competency or local legislative issues, or scope of practice rights. There is already research in nursing which explores collaborative competency development in Australia and New Zealand (Gardner et al 2006), and this should inform the process as it rolls out within osteopathy.

That the process should meet guidelines set down by DEEWR (Department of Education, Employment and Workplace Relations) for assessing authorities who undertake overseas assessment of professionals for migration purposes.
Readers should refer to the document: Good Practice Guide: Advice on providing migration skills assessment services, produced by DEEWR. Also helpful as background information and orientation is the Parliament of the Commonwealth of Australia, Joint Standing Committee on Migration Review of Arrangements for overseas skills recognition (Canberra, 2006).

Steps in developing a framework for osteopathic capability assessment

Review, with help of experts, the range of main assessment practices used in related disciplines and identify a set of practises that might be applicable to osteopathy.

Analyse strengths and weaknesses of current assessment systems in osteopathy
Map suitable assessment practices against the criteria within the capability framework discussed earlier
Consult with those familiar with assessment in osteopathy and/or in related health fields on the plausibility of the proposed assessment framework.
Consideration of issues of feasibility, practicality and cost
Proposal for a limited set of assessment practices that might be realistically applied

These steps are elaborated within part two of this report.

Part Two

Introduction to part two.

The scope of this part of the report on assessment practices necessarily focuses on certain aspects of the subject. Van der Vleuten (1996) describes various criteria for determining the usefulness of assessment methods: reliability, validity, impact on future learning and costs. It is outside the remit of this research and report to discuss cost and practicability issues relating to various assessment methods, except in the most general terms. Those are the domain of any regulatory or assessing authority who implements a process of assessment for any particular purpose. Hence, recommendations of any particular method cannot be absolute and a considered judgement must be made by the assessing authority when choosing between methods. This report does though identify several methods of assessment which are either routinely used in health-oriented assessment, particularly in high-stakes situations such as evaluating competence for professional licensing and registration purposes, or are particularly useful or valid and reliable in such circumstances. As stated, these may or may not be the most practicable or cost effective for any particular assessing authority, and so a degree of compromise is by necessity present in the final design of the assessment process as a whole. This report also identifies methods of assessment which are less suitable, have low validity or reliability, and may not be suitable within a high-stakes assessment, information which is useful to the planners of any overall assessment process. The selection of which assessment practices to include and the emphases on them have been drawn from the literature discussed here, the prior experiences of assessment in professional education by the principal authors and the advice of the assessment experts consulted.

Background to the emphasis within the developed 'capabilities required for osteopathic practice'.

Assessment practices must arise from the identification of what is to be assessed. In order to achieve that, we must ask some fundamental questions about what those factors may be. In this context, Callaghan (2007) asks: "what are the patient outcomes that society expects of us?" The response to this seems increasingly to be a wide-ranging, team-based approach to healthcare. In such an approach the needs of the patient are central to healthcare delivery and professional practices. Individual emphases must interface with a range of practitioners, service areas and organisational components. Any one of these must recognise that they themselves may not hold the key to that person's optimum care but they jointly possess the knowledge, skills and attributes to practice within the healthcare system towards that overarching goal.

In such a practice environment what constitutes competence is more than a set of skills, attributes or knowledge, but requires a range of capabilities, where reflection, self appraisal and critical thinking and professional audit are central processes guiding the ongoing learning and professionalism of the individual practitioner. In such a context any assessment that acts as a registration or licensing gateway must not only be about patient safety but must reflect the ability of the applying practitioner to operate within such an integrated system.

Healthcare delivery in Australia and New Zealand is increasingly such a system. As various complementary and allied health professions such as osteopathy, chiropractic and others become more aligned with the mainstream medical services, there is a need for osteopathic professionals to operate in such a climate. Accordingly, the first stage of development of an assessment model for overseas osteopathic applicants for migration or registration purposes must be the development of a set of capabilities that reflect the above.

Implications for ongoing practice.

One further factor which could be extremely useful in assessment planning is that of promotion of ongoing learning. Epstein (2007) indicates that the principles of assessment should include the following goals: providing directions for future learning and public protection. In this context, assessment of overseas osteopathic applicants should not only explore fitness to practice in an Australasian context, but act as an insightful experience for the candidate into their initial and ongoing learning needs within that geographical and regulatory framework. Promotion of this aspect of the assessment for overseas applicants may help to reduce dissatisfaction reporting (of the applicants' experience of the process), and help encourage a positive attitude to ongoing learning challenges through their professional lives in Australia and New Zealand.

Steps in developing an assessment strategy.

These 6 steps were introduced at the end of part one of the report, and are expanded below.

1) Review, with help of experts, the range of main assessment practices used in related disciplines and to identify a set that might be applicable to osteopathy.

A wide ranging literature review was conducted, and a number of useful documents have been identified which summarise and discuss many relevant issues. These have been referred to throughout this report, and are contained in the references section. One of particular note here is an extremely useful and accessible discussion for those developing assessment systems. It is contained within 'Developing and maintaining an assessment system – a PMETB guide to good practice', a document produced by the (UK) Post graduate Medical Education and Training Board (PMETB, 2007). It explores many of the issues raised in this report, and gives fulsome discussion on utility, transparency in standard setting, selection and training of assessors, integrating assessment into the curriculum and constructing the assessment system.

Assessment methods.

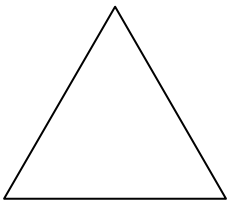
There is a wide range of assessment methods that can be used in assessment processes. These have been documented and discussed in the literature, although new approaches and variations on old ones are continually being published. In the

area of education for the health professions this is a rapidly moving area and what would have been considered appropriate only ten years ago is now less well-regarded. Each method has strengths and weaknesses; each has the potential for use in making some kinds of assessment, but is not useful in others. There is no one approach suited for the diversity of outcomes in osteopathy assessment. The best that can be achieved is a mix that together enables the main competencies to be judged.

Before considering methods however, it is important to note that any method needs to be fit for purpose. What might be suitable in a short quiz in a lecture to test current knowledge would be quite inappropriate in judging professional competence. When assessment is to be used for purposes of summative judgement, considerable investment needs to be made in ensuring that it is valid for the purpose for which it is used, that anticipation of the assessment focuses candidates on what is considered to be most important and that the method can be understood and utilised by those who will administer it and made judgements based on the outcomes.

The discussion below comments on the relative values of the various assessment types (although it is not an exhaustive list). The report will expand upon a number of these assessment methods, to help readers understand useful and appropriate approaches to the development of an assessment process for examining overseas applicants for registration.

A simple and useful way of organising types of assessment is through use of George Miller's classic pyramid (1990). Miller illustrates the relationship between knowledge and performance, that is, between what a person knows and can do:



Does	Performance or hands-on assessment
Shows how	Performance or hands-on assessment
Knows how	Written, oral and computer-based assessment
Knows	Written, oral and computer-based assessment

The professional character of the relationship is greater the higher up the pyramid the item. Also, higher levels progressively encompass lower levels, so that assessment of knowledge, for example, can be made through the use of knowledge in performance.

A variety of methods encompassing all levels of Miller's pyramid has been commonly considered to be an effective way of assessing competence:

Does Performance assessment in vivo: portfolio, mini-CEX (observation of a part of a clinical encounter), DOPS (directly observed procedural skill)
Shows how performance assessment in vitro: long and short case, OSCE…..
Knows how (Clinical) context based tests: EMQ (extended matching questions), SBA (single best answer), essay type. Oral…
Knows factual tests: MCQ, essay types, oral….

In particular: For knowledge, concepts, application (knows and knows how)

Preferred: context-based MCQ, Extended Matching Item (EMI), short answer questions, situational judgement tests
Not recommended: long essay question, viva, true-false type MCQ

For Shows how
Preferred: multi-station OSCE or its variants
Alternatives: multiple short cases with structured marking scheme and multiple examiners
Not recommended: single long case; traditional viva.

For performance based assessment (Does and Shows how):
Preferred: mini-CEX, DOPS for procedural skills; 360 degree evaluation.
Alternatives: portfolio, long book, clinical work sampling
Not recommended: retrospective end of posting assessment with a single assessor

Useful sources

Numerous other summaries have been researched and published, and in particular the ACGME Outcomes Project (Accreditation Council for Graduate Medical Education), in conjunction with the ABMS (American Board of Medical Specialities), 2000. One of their publications is the 'Toolbox of Assessment Methods', which discusses 13 different tools ranging from 360 degree instruments, to global ratings scales to OSCE's and written examinations. They have also produced a 'Medical Assessment ToolTable' which is a matrix indicating which of these 13 tools is either the most desirable, next best method or a potentially applicable method mapped against a series of competencies and required skills. Both of these are available the ACGME Outcome Project website: http://www.acgme.org/outcome These publications give a range of useful background information, which has also informed this project.

For an overview of assessment principles, the Australian Nursing Council's 'Principles for the Assessment of National Competency Standards for Registered and Enrolled Nurses' 2002, is of interest. It discusses critical issues in assessment of performance, including the use of evidence from sources other than testing, which can be useful in assessing competence, such as document review and self-assessment.

Assessing the top layer of Miller's Pyramid (*Does*).

Mini CEx.

Real patient encounters are observed, but only a part of them is utilised – in other words one aspect of the evaluation or management of a patient is observed and assessed, rather than the whole encounter, as in a long case (where the candidate is not always observed throughout prior to assessing their summation through an oral examination based on the case). This type of shortened real patient assessment method is highly applicable in medicine, where doctors are frequently required to utilise brief clinical encounters covering only certain aspects of a patient's case. Osteopathic clinics are not normally run this way, but for assessment purposes there may be a role for a type of modified CEx to be utilised. For example, they can be of value in osteopathic assessments if a candidate can access multiple patients where

they are able to perform over a longer period of time, seeing a greater variety and complexity of patient cases, with examiners each assessing only part of the performance. This is readily done in an undergraduate or entry-level education programme clinic, where students are seeing multiple patients under the supervision of a variety of staff trained in assessment.

The Mini CEx could be particularly relevant for the assessment of competence in overseas applicants if a model of work-based placement assessment were used. Note: work-based placements might not be useful in a private clinical setting if only one osteopathic principal were available as an examiner. They would be more effective in a group practice, or as part of a university clinic, where large numbers of patients and staff are more likely to be available. Legislative constraints may operate, such as insurance and the need for conditional registration for these situations, and the need for assessor training and audit would have to be considered by the appropriate authority. However, there may be positive cost implications if run within an existing clinic.

DOPS (directly observed practical skills)

These are used to focus on particular clinical or procedural skills. An assessor observes how a skill is conducted in the context of a real patient encounter. In cases where a skill may be legitimately practiced independently of a presenting condition, eg a routine of neurological or cardiovascular examination], this can be performed on someone solely for assessment purposes. However, when the skill involved requires more than the skilful conduct of a safe procedure, this may not be possible. DOPS are used when the skill in question has to be seen in action for a judgement to be made that the candidate can perform it well. Unlike a minCEx, DOPS involves the scheduling of particular skills to be observed and requires patients or substitutes available for the practice of these skills. However, many of the general comments about the use of mini CEx in osteopathy are equally relevant to DOPS.

Assessing the second level of Millers pyramid (*Shows How*):

Use of the short case.

In the short case, the student is asked to perform a supervised focused physical examination (e.g., of only the abdomen) of a real patient, with little knowledge of the patient's history, and is then assessed on the basis of the technique of the examination and the ability to elicit physical signs and interpret these findings correctly. Several cases are used to improve validity and reliability.

This type of assessment method is not usually strictly applied in an osteopathic context, but can be adapted through the use of standardised patients or models, upon whom a candidate is asked to perform various examinations, and discuss diagnostic implications (the examiner provides the candidate with pre-prepared examination ‘findings’). Note: ‘findings’ can by given as part of the briefing or in a piecemeal way following requests by the candidate. In this format the short case (with standardised patients) is often incorporated as one of several stations in an OSCE or OSPE assessment.

Use of the long case.

This is where one candidate performs a complete clinical encounter from history taking and examination through to diagnostic and treatment decisions and actions. They are then questioned about their deliberations and diagnoses, although they are usually not observed during their clinical encounter (thereby making this a second layer pyramid assessment). These are very commonly used in osteopathic education and assessment arenas, and in many current high stakes examinations. It is the most historically favoured method for assessing competence.

There is disagreement concerning the generalisability of the assessment outcomes from the long case (i.e. from the individual patient actually observed, to other situations / multiple patients with multiple problems). Some authors maintain that there is good generalisability (Olson 1999) to other cases not seen, others disagree. Reliability and validity are also low due to the very small number and the (usually) unpredictable nature of clinical cases that can be seen coupled with small numbers of examiners per long case. Norcini (2002) discusses some of the many problems associated with the long case, including examiner inexperience and variation. One element where they may retain their usefulness though is in exploring the candidate's ability to integrate all aspects of a clinical encounter and case details, which by its nature cannot be examined in an OSCE or 'station' (Benning and Broadhurst, 2007). However, time is always an issue in examination, and the number of cases required in a long case format to match the same reliability and validity of, for example, OSCE's (Objective Structured Clinical Examination) is probably prohibitive as around 10 cases as a minimum is noted in the literature (Wass, 2004; Wass et al, 2001). They should therefore NOT be relied upon in isolation as an effective method to assess competence for practice.

OSCE's and their variations

Objective Structured Clinical Examinations (OSCEs) are commonly used in high-stakes assessment arenas, and have a variety of strengths and weaknesses. OSCEs provide a large number of clinical experiences in a short period of time as candidates rotate through a sequence of activities. Through the use of standardised patients they can increase the variety and complexity of clinical situations that can be tested and therefore cover a wider range of clinical practice and critical thinking than can the traditional long case, for example. They are though time consuming and require large numbers of staff, as at least 10 and preferable 15 or more stations of 7-10 minutes are required to achieve good reliability and validity (Austin et al, 2003). This can make them unpractical in terms of cost and resources when only one or two candidates are tested at any one time.

Portfolios

Portfolios are quite diverse, but typically consist of detailed collections of evidence and commentaries by candidates and supervisors on them. These would include examples of case records, range of practice undertaken, representations of forms of practice and collections of material that has not otherwise been formally assessed or accredited by an authority.

Portfolios can be voluminous and time consuming to assess. Detailed guidelines on the particular form and scope of a portfolio are provided to candidates and page lengths may be specified to make them manageable.

The more complex the portfolio requirement the more caution needs to be exercised in ensuring that they do not become more an exercise of portrayal, than a representation of what a candidate normally does in their practice.

Research on portfolios as an assessment type is quite ambiguous as there has been little standardisation of what a portfolio should be for assessment purposes. Positive features have been reported, but types vary greatly.

They are used by the GOsC UK Overseas Non EEA Assessments.

360 degree assessments

These involve multiple assessors, including the candidate, supervisors, peers and sometimes patients reviewing that person's competence. This necessarily occurs in a work-based placement situation and it requires that those involved have a reasonable degree of familiarity with the candidate and their performance in daily practice. 360 degree assessment is widely used in medicine and other professions and industries. There may be a role for this type of assessment in osteopathic processes if a work-based placement or short term /locum' concept (as discussed above) is utilised.

Assessing the third layer of Miller's pyramid (*Knows How*):

Situational Judgement Tests.

These are a written format paper, not dissimilar to a form of extended matching multiple choice test. They look at a person's judgement in various posed workplace situations. They can explore such things as ethical dilemmas and social competence issues more readily than other tests. They have replaced various essay format questions in medicine over the years (Patterson, 2005), and the consensus by medical assessment experts is very favourable (Schubert et al, 2008), although as with all examinations careful thought must be given to their construction (Lievens and Sackett, 2007). The background to their use within an assessment situation (GP placements) is given on the BMJ website:
http://www.careers.bmj.com/careers/advice/view-article.html?id=2558

A good overview of the actual tests is also found on the BMJ Careers website, where an introduction is given for GP's who are exposed to this test as part of their career selection process. The tests are sometimes called professional dilemma tests, and cover soft skills and non-academic, practical intelligence.

This overview is found at http://careers.bmj.com/careers/advice/view-article.html?id=2365 Sample questions of the two parts to this test are found at: http://www.emedica.co.uk/bmjsjt.htm

Script Concordance Tests.

The script concordance test is a written format of test that can be computer marked, and is designed to see if a candidate's knowledge is sufficiently well ordered to manage various clinical actions and situations. That kind of organisation of knowledge is called a script, and candidates are given a written but authentic scenario in which they must interpret data to make decisions (Charlin et al, 2000). It is particularly useful in assessing competence within complex, ambiguous or uncertain situations. The person's responses / choices are compared to those pre-determined by a panel of experts, and there is now quite a bit of guidance in the literature on the development of these tests and on their validity and reliability (Gagnon et al, 2008; Fournier at el, 2008).

Extended matching, single best answer assessments

These have emerged from basic multiple choice questions and are considered much more relevant to the assessment of clinical practice and the inference of clinical competence. A good reference for this type of question is found in the paper by Duthie et al, 2006.

Assessing the fourth layer of Miller's Pyramid (*Knows*):

Basic true-false or simple choice types of multiple choice

Examples of this are simple format multiple choice questions that cover topics such as basic anatomy and physiology samples. Examples of the types of multiple choice utilised in Australian overseas assessments currently are in a format that is not sufficiently complex or problem based or clinically oriented and are mostly knowledge based. While many forms of multiple choice tests appear to be deceptively simple to write, they actually require considerable expertise to construct well and the very large number of poorly constructed multiple choice questions experienced by students has given this form of test a very bad reputation. There is consensus amongst experts that this is not appropriate in high-stakes assessment for clinical competence.

Viva

The viva is a face-to-face examination with one or more examiners. Problems are posed and candidates give verbal responses. Difficulties occur in ensuring vivas are sufficiently consistent from one candidate to the next and that a sufficiently wide range of topics are covered. To be valid, examiners need to be trained and detailed protocols adopted. They are a relatively inefficient form of assessment, though it does allow candidates to ensure that they understand the questions they are being asked.

Other comments and relevant issues in assessment

Notes on 'performance indicators' or cues

The 'Capabilities for Osteopathic Practice' document includes various criteria for each element. Assessment situations will typically relate to multiple elements of the capabilities. In applying the criteria to make assessment judgements, assessors will find it helpful and natural to develop various agreed upon cues or performance indicators to help to interpret or supplement the criteria. These cues or performance indicators will assist in maintaining consistent judgement in the given assessment situation.

Inferring competence from performance.

English language although rich is still inadequate to fully describe competence – it is difficult to describe performance in words, and is often easier to observe. However, guides are needed to aid professional judgers / assessors. Such guides need to focus attention on salient features of the practice being observed that are pivotal in osteopathic treatment, rather than on conventions and personal style and manner of presenting oneself. They need to link directly to elements and criteria so that judgements can be defended in terms of these. Thus, as noted above, particular sets of indicators or cues can be derived from elements and criteria to construct guidelines for observations in particular assessment situations.

Intra-individual variation in performance of complex tasks is common, and often as a result of the people around the individual and those doing the assessing (Stewart et al, 2007). It is the interplay between varied people around the individual that affects their performance, and this should not be forgotten when planning a system of assessment in a high stakes environment. Tracking someone's performance over time helps to reduce this type of outside influence on an individuals performance at any given moment.

Validation of Assessment Tools

No matter what the intrinsic advantages and disadvantages any given assessment strategy may draw from the assessment types used, each assessment procedure needs to be subjected to its own validity check to ensure that it effectively does what it purports to do. This is an empirical process that can only be undertaken when an assessment process has been fully designed.

Assessor training

This relates both to those developing the assessment tools, writing the questions and determining appropriate clinical situations to be explored, and also to those who will be reviewing the evidence, observing the candidates' performance and endeavouring to infer competence or its lack based upon all those items. This is a very significant factor in the success or otherwise of any assessment strategy, and undue emphasis must not be placed on the assessment tool(s) but should be balanced by effective and ongoing assessor training and development (McGrath et al, 2006).

2) Analysis of strengths and weaknesses of current assessment systems in osteopathy

A brief analysis of the strengths and weaknesses of the current assessment systems in Osteopathy in Australia and New Zealand was undertaken, and no one model was considered wholly suitable to its task. All models had some strengths, such as the long cases supplemented by the clinical practicum in Victoria, the document review and case discussion based section of the desktop audit in Western Australia and the format for curricular review in New Zealand, although this did still limit the number of potential candidates somewhat arbitrarily. Examples of weaknesses included the lack of real patients used in the Western Australian exam, the use only of real patients in the New Zealand exam and the curriculum review hurdle and the format of multiple choice paper used in the Victoria exam. These considerations arose from discussions with experts and from concerns raised with us from focus groups e.g. about multiple choice formats, about fraud in desktop stages and the use of live versus standardised patients. The literature in these fields also identifies similar issues. Two recent papers related to osteopathic assessment are of interest (London, 2008; Fletcher, 2008) and indicate that the osteopathic profession shares similar concerns about assessment with other health professions.

For quick reference we have produced an assessment tool overview which maps methods currently used in osteopathic assessment against a number of potential tools (derived from Australian Medical Council assessment strategies). This overview indicates how many other potential assessment tools could be utilised in a model for the assessment of overseas osteopaths. The overview is not exhaustive but represents common best practice approaches within assessment.

Current use of assessment tools in osteopathic overseas candidate examination.

Below are a range of the most commonly used assessment tools in health professional evaluation, mapped against current usage in Australia and New Zealand. NP denotes not practicable (or not applicable) for assessment of overseas osteopaths, ? indicates some potential value, V indicates valuable, E indicates essential / most useful, C indicates currently used in either VIC, WA or NZ exam processes.

Modified essay questions	MCQ	EMQ	SBA	SAQ
e.g. Students given info in stages, and answer as they go; or written case based discussion structured around various points of interest	multiple choice questionnaires	simple, with derivative, text-based, illustration based, matching / single best answer	single best answer format of mcq	self assessment questionnaires
?	NP	E	E	?
C (WA)	C (WA & VIC)			
SAIL/ assess of docs	Unannounced Simulated Patients	Hi Fi Simulation	Portfolio/log book	Global Rating Scale (end of term)
e.g. Sheffield assessment instrument for letters, poss need to develop an osteo specific one	Persons reporting to be patients, who observe and rate the practitioners performance in various areas (ACTORS)	computor based games, use of anatomical models, virtual simulation for surgeons etc www.socmedsim.org	Self reporting assessment / record	Self rating or assessor rating / overview
VP	NP	NP	?	NP
C (WA)				
Script Concordance	DOPS	SHORT CASE	OSCE	Mini Cex
used to assess clinical reasoning in ambiguous or uncertain situations, mini case scenarios with a few questions at staged intervals	directly observed practical / procedural skills, real or simulated patients	Live patients (or models) observed for part of the clinical encounter e.g. in a viva or clinical practicum type of assessment	Standardised patients, several stations to exam Note: actors are increasingly used, to mimic additional case details such as limps, cultural sensitivities etc, and these actors have their own professional association.	Live patients, in a normal clinical setting, where part of the patient encounter is assessed
V	E	V	?	E
	C (WA)	C (WA)		
Patient Satisfaction eg DISQ	Self Assessment	Case Based Discussion	360 Degree /Team Bases Assessment	OTHER – Long case
Doctors interpersonal skills questionnaire	Self assessment	Viva style assessment, structured around a case	also known as MSF - multisource feedback assessment	Real patient encounter in normal clinical setting, assessed as a whole
V	?	V	NP	
				C (VIC & NZ)

3) Map suitable assessment practices against the criteria within the capability framework discussed earlier

A matrix of assessment has been developed, which is in draft format, to help orient developers into the range of assessment tools that might be suitable for the capabilities and elements described in our proposed capabilities document.

Guide to abbreviations used in the assessment matrix below.

CRITERIA / tool	Written format of case based discussion (WCBD)	General document review (GDR)	Educational biography review (EBR)	Portfolio (PORT)	EMQ / SAB	SAQ
comments on tool	could be done as self-reporting / non supervised, or under formal moderation, as part of initial desktop stage (like iWA process for example)	eg SAIL - type assessment - looking at their referral letters / other professional correspondences and copies of patient records / notes, as part of an initial review of application / desktop stage (like in wa - where it is combined within the written case based discussion essay)	as part of an initial review of application / desktop stage (like WA process)	Self reporting, done as initial desktop review	Extended matching mcq and single best answer mcq, could be done in original country either online in secure environment, or under supervision	Using term lifted from matrix provided by assessment expert - self assessment questionnaire / self reporting of competence. e.g. used in UK Osteopathic Portfolio for non EU applicants to UK.
CRITERIA / tool	Script concordance (SC)	Modified essay (ME)	OSCE / standardised patient (OSCE / SP)	DOPS - as part of either OSCE or Mini Cex	Mini Cex and long case (LC)	Viva / verbal case based discussion (VIVA)
comments on tool	could be used within a multi-choice format / stage, its another format of written test	Candidates given case info bit by bit, so takes a lot of moderation, or a clever computor programme that allows them to do online, bit by	Made up case, candidate demonstrates on a live model (but not an actual patient). If this were to	Directly observed practical skills	Live real patients, in proper context	Probably incorporates the case based discussion of junior doctors matrix, as well as a sink /catch-all for

	for critical thinking processes	bit	use actors, they would be called simulated patients, but this would be a bit too expensive)			any other questions or review of answers in preceding exam components that candidate did / does

Mapping within a matrix.

Suggested mapping against potential assessment tools for five of the domains developed have been included, one of which is given below (the others are located in the appendices). Note: these are not meant to be exclusive mappings, and instead give indications of the most useful or practicable choices. Other tools in the list may also be used to assess any of the criteria, but the ones listed are an example of where assessment may take place. This type of mapping is one of several stages in developing an assessment strategy. When this type of matrix is filled out it becomes easier to see which criteria are linked together under one assessment tool heading. That assessment tool then needs to be developed for that particular grouping of criteria. The performance indicators can then be considered, and the questions / scenarios for that tool can only be written once the grouping of criteria to be assessed is completed. Thus if one chooses to group the matrix slightly differently the final assessment tool outcome will be subtly different. This is one of the reasons why it is not possible to write a 'one size fits all' assessment process. There are many reasons why various tools are used or not in any potential assessment strategy, including how professional experts believe the matrix groupings might be laid out. The matrices below do highlight how such a mapping exercise might look. The sixth domain has not been mapped out in this exercise as it relates mostly to regulatory and professional ethics and business practices and the like. Hence it is more difficult to assessment in the context of assessment of overseas applicants. As discussed elsewhere in the report it is sometimes unreasonable to expect someone who normally practices overseas to have an in-depth working knowledge of these issues, and increasingly professions are turning to induction courses or work-based assessment practices to ensure registrant' capability in these areas. This approach has implications for registration categories, which would need to be explored by the relevant assessing authority and registering jurisdictions.

This mapping exercise was reviewed within focus groups / meetings and discussions and broad agreement with the choices made here was given.

Note: That review was done using a working copy of the domains for practice document and its various elements, and so the final document included with the report may include some minor changes to the elements, which is not material to this exercise. For the same reason there may be some formatting or grammatical errors in the criteria in this exercise, which have been corrected for the final version. The first domain has been listed in full here, and the remaining four domains mapped are included in the appendices, for reasons of space.

Assessment of first domain

CRITERIA / tool	WCBD	GDR	EBR	PORT	EMQ / SAB	SAQ	SC	ME	OSCE / SP	DOPS	Mini Cex / LC	Viva
1.1.1 Critically uses a variety of information retrieval mechanisms, including osteopathic physical examination and palpation techniques									yes		yes	
1.1.2 Compiles a health care record that is personal to the individual		yes									yes	
1.1.3 Incorporates bio-psychosocial components within the health record		yes							yes		yes	
1.1.4 Ensures patient-centred orientation of case analysis		yes							yes		yes	

CRITERIA / tool	WCBD	GDR	EBR	PORT	EMQ / SAB	SAQ	SC	ME	OSCE / SP	DOPS	Mini Cex / LC	Viva
1.2.1 Working hypotheses are compared and contrasted, using information retrieved, to identify a suitable working diagnosis (including concepts of cause and maintenance)	yes				yes		yes	yes	yes		yes	
1.2.2 Uses a systematic osteopathic and medical differential diagnostic process	yes				yes		yes	yes	yes	yes	yes	
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									yes	yes	yes	

CRITERIA / tool	WCBD	GDR	EBR	PORT	EMQ / SAB	SAQ	SC	ME	OSCE / SP	DOPS	Mini Cex / LC	Viva
1.2.4 Where diagnosis and patient evaluation are not able to be completed, plan of care is adapted appropriately	yes	yes			yes		yes	yes			yes	
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	yes						yes		yes	yes	yes	
1.3.1 Plan of care is negotiated with, relevant and appropriate to person's presenting complaint		yes							yes	yes	yes	
1.3.2 Plan of care is within the context of the person's general health		yes							yes	yes	yes	

CRITERIA / tool	WCBD	GDR	EBR	PORT	EMQ / SAB	SAQ	SC	ME	OSCE / SP	DOPS	Mini Cex / LC	Viva
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.	yes	yes										yes
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	yes	yes										yes
1.3.5 Plan of care and supporting evidence is appropriately noted in patients records		yes									yes	
1.4.1 Prognoses are developed, and appropriate care is determined on that basis	yes								yes	yes	yes	

CRITERIA / tool	WCBD	GDR	EBR	PORT	EMQ / SAB	SAQ	SC	ME	OSCE / SP	DOPS	Mini Cex / LC	Viva
1.4.2 Appropriate outcome measures are devised and recorded to monitor progress	yes	yes							yes		yes	yes
1.4.3 Practitioner reviews progress on an ongoing basis		yes										yes
1.4.4 Practitioner recognises when outcomes differ from those expected, can identify why and acts accordingly	yes				yes			yes			yes	
1.4.5 Maintains a commitment to delivering well integrated and coordinated care for all patients, including those with multiple, ongoing and complex conditions		yes		yes		yes						

CRITERIA / tool	WCBD	GDR	EBR	PORT	EMQ / SAB	SAQ	SC	ME	OSCE / SP	DOPS	Mini Cex / LC	Viva
1.5.1 Case review is capable of identifying if information is lacking or needs investigation							yes	yes				yes
1.5.2 Practitioner responds accordingly to cues emerging from case review							yes	yes	yes	yes	yes	
1.5.3 Recognises when to withdraw plan of care	yes	yes							yes		yes	
1.6.1 Recognises and remains open to clinical challenges and uncertainty						yes	yes		yes	yes	yes	yes
1.6.2 Adjusts plan of care and professional behaviour on an ongoing basis in response to such challenges				yes		yes						

4) Consultation with those familiar with assessment in osteopathy

A number of osteopathic assessors and osteopaths with educational and other relevant experience were consulted (either individually due to constraints of time, budget or geography) or in groups where possible. Feedback was gathered from osteopathic

experts residing in each state or country that performs overseas assessments, as well as from others around Australia. Although the level of expertise in commonly used assessment tools was not uniform in these groups / individuals this consultation was useful in reviewing the assessment matrix, and in discussing commonly used extant methods of assessment in osteopathy, which gave insight into potential issues for developing a revised assessment model. The variation amongst expert familiarity within osteopathy does highlight the need for a strong commitment to education and training support for individuals, institutions or organisation that may develop the matrix and any assessment tools.

5) Consideration of issues of feasibility, practicality and cost

Development of an assessment strategy naturally includes issues of feasibility, practicality and cost. What one assessing authority may be willing to pay for, or charge the candidate for, may differ geographically and professionally according to perceived need. Also, to improve validity and reliability within an assessment tool the numbers of patients seen / episodes observed / questions utilised may be onerous and therefore not practicable. The best example of this is the long case, where at least 9-10 patients would need to be seen by one candidate in order to achieve similar reliability and validity to other types of assessment. This is further discussed elsewhere in the report. The final assessment strategy developed will be shaped by the particular assessing authority that adopts the capabilities for practice as their assessment base. This report aims to familiarise any such authority with the issues in this regard.

6) Proposal for a limited set of assessment practices that might be realistically applied

Work based Assessment Framework

Work-based assessment is the most realistic process for exploring a candidate's capability in practice. There is consensus amongst experts that this is deemed to be the most effective method to apply. However there are legislative and other constraints which may make it an impractical model to follow for the assessment of overseas osteopathic applicants for registration / migration purposes. In its stead, an alternative framework is proposed.

Alternative Framework of proposed components in the process of assessment

Multi stage and multi-process strategy:
Using a multi-stage and multi-process strategy enables the widest range of elements to be assessed and allows many elements to be assessed more than once, therefore increasing confidence in the outcomes of the process.

It is important to note: IT ISN'T THE METHODS THAT DO THE COVERAGE, IT IS THE WAY THE TOOLS ARE USED.

An alternative framework includes the following:

Gathering evidence:
Review of documents such as original case notes and referral letters
Educational Biography and self-reporting of competence, presented in a form of portfolio (* see later comments on self assessment of competence and ongoing learning / professional development issues).
Assessment Tools:

- Written components
- Practical components using standardised / simulated patients
- Practical components using real patients

This could ultimately form a 3 component process which is a combination of a pencil and paper / written initial element coupled with a document review, followed with some form of 'hands on' practical assessment using standardised patients and then a real patient based component. The written component(s) and document review can hopefully be ultimately conducted offshore, either through a delegated authority e.g. Pharmacy Council, or online, prior to the candidate's arrival in Australia or New Zealand.

Only when that is successfully negotiated should a candidate be able to progress to further assessment stages. These should include an OSCE / OSPE (standardised patient) section and a live patient section. Note assessing authorities can decide to have an absolute gateway at this stage – i.e. if the applicants do not demonstrate competence through their written work then they should not progress further. Or, the authority can decide that this gateway is in fact an 'informative' process which could be absolute or advisory. Therefore some relatively weak candidates (on paper) may be allowed to progress to the onshore practical components. This is more equitable on candidates and should not compromise the overall assessment strategy.

First Component – pencil and paper / written and document review

Two sections – written tests, and a document review.

Written tests could be made up of a type of case based discussion paper which can be un-moderated, and this section should include reference to original cases and referral letters / other forms of professional communication. This can be done in the context of the case based discussion part, or as a stand alone mini portfolio. The assessors can review not only the responses to the case discussion, but review the documents accompanying this discussion i.e. the case notes and referral letters. These types of written papers and document reviews typically look for evidence of appropriate practice / performance.

The written test should also include SITUATIONAL JUDGEMENTS TESTS (SIJ) and CLINICAL REASONING TESTS (CRT). These are not dissimilar to extended matching multiple choice questions and single best answer questions which should also be included in this section to infer critical thinking and problem solving ability across a range of clinical situations. The SIF's and CRT's are more informative for a variety of clinical competencies including social competence evaluation.

Second component – modified OSCE / OSPE / DOPS

These would typically deal with complex and unexpected clinical scenarios, problem solving strategies and skills, and ranges of technical approaches. The use of standardised and / or simulated patients would help to improve the range of cases and clinical scenarios that could be assessed. Note: DOPS – directly observed procedural skills – would be like a mini CEx (see below) if done on a real patient, but can use standardised or simulated patients.

As a typical OSCE has many stations, a modified format of the exam might be considered. There is less evidence on the validity and reliability of shortened forms of OSCE's / short case combinations than for full length OSCE's, but they might be something that could be developed over time.

Third component – Mini Cex / long case and viva.

The number of live patients required in various assessment tools to ensure adequate testing of competence is an empirical matter (and cannot be determined in advance), and will not necessarily be the same for each candidate. However, the exact number is normally larger than can be tested within a single session. This means that once a system is set up there should be some post-assessment review of candidates in practice, to audit whether the number of live patients within the assessment is sufficient. This is particularly so if the number of cases seen is small. This audit component is very important and does not seem to be strongly developed within some of the osteopathic assessments reviewed.

Ideally, multiple occasions (involving multiple and diverse patients and situations) are seen, and multiple assessors do the reviewing over time. This links in well with the work-based assessment process utilised by various authorities, and proposed above.

In this context altering the format of this section of the exam from what is traditionally used in osteopathic high stakes exams from 2-3 long cases including case histories, diagnoses and treatment) to perhaps a day or longer assessment where candidates see a variety of patients over those day(s) (as though they were on a locum / practice visit, for example) and assessors make frequent short observations, as well as observing some cases all the way through may be worthwhile considering and researching further. Placing this within a teaching clinic environment may have positive cost or resource implications. Enrolling candidates as students in a form of short orientation and clinical capability course with formal assessment may get around insurance and regulatory hurdles that might arise.

Further variations within this 3 component model.

As an alterative, to reduce the burden on assessors and cost issues, the second component might be 'replaced' by expanding the first component sections, together with a more fulsome third stage. The third stage could also enable the demonstration of a range of techniques if a greater number of 'treatment' sessions were included rather than just the common 'new patient' presentation. In states where live patients are not currently utilised, insurance issues should be explored to enable these processes to be

delivered in each location. This would fit well with any arrangement that allowed a candidate to be assessed over a period of time.

Prior to the assessment: Eligibility to sit the assessment

Curriculum Reviews

Course (content / mode / duration / qualification) evaluation

Various conversations were held with a number of professional assessing authorities to provide the research team with an understanding of their use of curriculum review processes. Nursing is one of the only major healthcare professions in Australia to still perform extensive curricular reviews, mainly because they do not perform any assessment of competence, and nurses are eligible to apply for registration solely on the basis of their qualification. Feedback from nursing authorities in Australia is that this reflects the governmental pressure to remove as many migratory constraints to nursing as possible whilst retaining some element of selection that seeks to ensure comparability with Australian Nursing standards. The ANC will look at the curricula for the types and areas of problem solving, how much clinical placements cover various clinical theoretical components, when these two have been placed in relation to each other in the curriculum and so on. They do not solely focus on hours of content delivery.

The physiotherapy profession also uses curriculum review and performs a very detailed process with each and every candidate. It too looks at curricula for detailed content and hours and also matches this against reports from the clinical placements regarding learning opportunities therein which the candidates have to supply.

The Osteopaths Registration Board of Victoria utilises curriculum review and includes a focus on reviewing courses by content and duration as a gateway to the assessment process. This is not defensible in terms of it being an indicator of any form of educational outcomes for the candidate or of subsequent professional performance and therefore is not recommended in the form currently undertaken by the Victorian Board.

The Osteopaths Registration Board of Western Australia adopts a different approach within curriculum review and does not limit applications from overseas osteopaths holding part time qualifications for example. A brief review of course documents for osteopathic content is conducted to screen out obvious imposters but beyond that it is the assessment process itself that screens out unsuitable and inadequately capable osteopaths. This is a more equitable process for potential applicants.

The New Zealand (osteopathic) Council takes a different approach again. They do not focus on duration or content hours alone, and screen out applicants based on their understanding of the authority that recognised that candidate's qualification in their country of origin. They only accept applicants whose qualifications have come from a small select list of assessing authorities. This process may be less onerous for the Council but is still inequitable from the candidate's point of view and is therefore not recommended in the format currently utilised.

In summary, there is consensus amongst assessment experts that curriculum reviews (however conducted) are inefficient and very unreliable indicators of applicants' potential ability within assessments, as there is usually too great a separation between the original qualification and current skills / capabilities of applicant. They are therefore not effective as eligibility criteria for assessment purposes.

Verification of qualification

This is the more appropriate approach, and any curricular review beyond this is perhaps done under the umbrella of a process similar to the medical profession's 'Competent Authority Model' (see below).

Competent Authority Model

This is the model being employed by the Australian Medical Council for the assessment of Junior Doctors applying for registration in Australia. No individual curricula are examined; candidates are not required to submit any course documentation or outlines of content, but are eligible for one of two assessment processes depending if they have a qualification from a competence assessing authority, or not. Those with a competent authority qualification can start work in Australia without taking any competency assessment, but must be so assessed within a number of months either through a work-based assessment schedule, or by their taking the full clinical competence assessment in an exam format, in a prescribed timeframe. If they do not have a competent authority qualification they must submit to the full clinical competence assessment in an exam format prior to any work placement.

As discussed the model used by the New Zealand Osteopathic Registration Board is similar to this in that they have identified the General Osteopathic Council as a regulatory body with requirements similar to themselves in terms of course accreditation and so consider that the recognised qualification status awarded by the GOsC to various UK courses is sufficient to identify the course constitutes equivalency with New Zealand course requirements. This enables applicants to New Zealand with these qualifications to be eligible for their competency exam.

This competent authority model is not the same as mutual recognition of qualifications between countries or assessing authorities, but is one way of introducing some clarity or selection into the arena of curriculum reviews should it be desired.

English Language Skills

Protocols should be reviewed to ensure the English language standards are set appropriately.

Other general considerations

Assessments in original country / offshore components

As stated, various written components (supervised or self reporting) could be done in the candidate's original country, prior to travel. This would reduce the burden on the applicant. Many health professions such as physiotherapists contract the Pharmacy Association to host offshore multiple choice exams for them, and the scripts are collated and sent to the individual profession for marking. This reduces cost burden on the health professions, and the costs can be part of the fees required of applicants. It is clearly less onerous on the candidate to navigate this hurdle of assessment in their own country, especially if this stage of the assessment is designed to act as a gateway stage to later assessments which must be carried out in Australia.

In the case of supervised / un-moderated written work, such as portfolios and modified essays / case discussions, applicants are required to confirm that any completed self-reporting essay / script / portfolio etc is their own work. Concerns about fraud may not be too burdensome for the assessing authority. Several experts take the view that if an applicant is dishonest and sends in work not their own this is clearly revealed when they are interviewed on their responses upon arrival in Australia for the remainder of the assessment process. Any dishonesty revealed of course relates to the applicant's professionalism and naturally becomes a component of the assessment in itself.

Online components

Many assessment components including a variety of multiple choice styles (knowledge based multiple choice, extended matching, short answer and so on), plus modified essays, script concordance and others can now be done online. These have a heavier upfront cost burden, but are more efficient in the longer term, especially if computor marked. Various security features are now possible to identify applicants, and to reduce fraud. One of the strong benefits is that it can be done offshore, thereby reducing cost and other burdens to the candidate and assessing authority in the longer term.

Orientation Courses

As discussed in the section on the assessment matrix and assessment tools, some of the domains in the capabilities document are less easily assessed in a brief clinical encounter and through the use of various written papers, than others.

It may therefore be more appropriate to ensure that the candidate is competent or educated in the Australian or New Zealand regulatory environment and is aware of local guidelines for practice and so on by using a different process for these areas. One might also realistically expect that candidates cannot really be familiar with these issues and others such as Medicare processes, insurance environments and work-place legislation until that person begins to work within the country in question. Hence a workbook, orientation course or work-based assessment might be usefully employed. Having the registration board require that a candidate also passes such an orientation course could be a simply administered component to registration, and require them to take an online course in such material. This is something that is relatively inexpensive to set up and administer, and can be on a cost recovery basis. This type of orientation course is already used in other professions, such as Nursing and Physiotherapy.

Orientation courses are used by the physiotherapy profession for another purpose also. In part they help to eliminate weaker or unsuitable candidates from the process. They use online discussion forums and web-based education to go through the exam components with potential candidates and to guide them through sample questions and examples of what their standards mean in practice and so on. Not only are they are finding that this illustration of the assessment process is very helpful for candidates and helps reduce administrative burden though confusion about the process as a whole, but the rate of self-withdrawal from the process by candidates is quite high. This indicates that it also has a place in reducing the burden of weak candidates on the assessment process as a whole.

Consideration would have to be given as to whether this requirement formed an unnecessary bar or hindrance to work opportunities, or was an unnecessary delay to full registration / practice rights, but might be a useful addition to the process as a whole.

Cautionary Notes

Preparation of Candidates.

This is a factor which should be considered, as already indicated above. Informal feedback from various assessing authorities and of candidates who have attempted to navigate the processes currently used in Australia or New Zealand has highlighted a very high level of dissatisfaction (given that we have only heard from some people, this may or may not be representative of the whole). Candidates feel that they are very unprepared for the assessments, and increasing orientation of the candidate should help to reduce stress levels without compromising the exam itself.

In other professions, this area (of candidate preparation) is receiving increasing interest, as it helps to orient candidates to the assessment process. This has several positive elements:
It helps to reduce bogus applicants, as anyone recognising they don't have the skills required tends to withdraw
It helps in terms of up-skilling when returning to work, thereby diminishing pressures on certain candidates and reducing unnecessary hurdles
It reduces repeat applications in that more candidates are appropriately oriented towards the process from the start

Physiotherapy for example (as discussed above) has developed a range of online and web-based conferencing facilities where candidates log on in real time for instruction, samples, workshopping and general discussion on the assessment requirements, which is receiving much positive feedback from both candidates and the assessing authority. As an indication of its application, one of their recent web based conferences included applicants from 30 different geographical locations all involved at the same time.

Self assessment of competence and ongoing learning / professional development

Self reporting of competence, although used by some assessing authorities in high-stakes situation does not lend itself well to issues of validity and reliability or truthfulness. It is therefore not perhaps useful in the context of overseas applicant assessment.

However, although outside the remit of this report, it is useful to note than many professions are utilising their standards for ongoing learning processes, helping professionals self assess their competence in order to guide their professional development and education.

The nursing profession has a very good system which is developed around an ongoing self-review of competence (and also useful for re-registration consideration and return to work situations, for example), and can be reviewed on the website of the Australian Nursing Federation, in the section on competency standards.
http://www.anf.org.au/nurses_gp/

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Appendix - Definitions / Glossary

Competence

A *competent* professional has the capacity to perform the range of professional roles and activities at the required standards of practice. In this sense, competence is a blanket term used to describe overall professional ability. As the above statement indicates, competence links (or integrates) three key ideas: a practitioner's *capacity*, their *performance*, and the *standard* of the performance. These three notions are centrally represented in professional competency standards: outcome statements (or elements) capture the kinds of performance that are required; criteria specify the levels or standards of performance that are required; and the indicators or cues point to the range of capacities, knowledge, skills, abilities, etc. that the practitioner needs on order to be competent.

Elements (or outcomes statements) taken singly are sometimes referred to as competencies.

Capability

The above characterisation of competence might be taken to suggest that all aspects of professional performance can be fully captured in a set of competency standards. In fact, this is not so. Not only are pre-specified standards unable to capture every conceivable occurrence in professional practice, but changes across or variations within contexts can mean that the pre-specified standards may need to be reinterpreted anyway. It is sometimes thought that the notion of competence does not cater for this degree of flexibility and adaptability. Hence the term 'capability' is advanced as being more future-oriented. We will sometimes use the term capability in this sense.

Domain (Unit)

A convenient grouping of major professional practice tasks/activities used for the purpose of describing practice. A series of domains (often 4 to 6) constitute the categories under which the competency standards for an occupation are listed. Since the grouping is done for convenience, there is no uniquely correct set of domains for a given occupation.

Elements (Outcome Statements)

These are significant actions that are important contributions to performance within a domain. These represent the lowest identifiable logical and discrete sub-grouping of actions and knowledge contributing to a domain of practice. Elements are best expressed as statements beginning with a suitable active verb (e.g. provides for ….., acts in accordance with …., obtains and interprets ….., formulates ….., implements …., etc).

Criteria

Each element or outcome statement is usually accompanied by a series of criteria. These criteria jointly describe the required level of performance of the outcome(s) that are specified in the elements. Criteria are usually expressed as statements beginning with a suitable noun (e.g. ability to ….., recognition of ….., knowledge that ….., application of …., awareness of …., etc).

Indicators or cues

Each criterion can be linked to a number of indicators or cues. Indicators point to or suggest measurable and/or observable features that are useful for determining whether aspects of competence have been achieved. Indicators assist in the interpretation of the criteria. Where indicators are provided they are meant to be helpful, but assessors are expected to supplement them as needed. Because competent performance is often significantly context-sensitive, the stated indicators can never be exhaustive or complete. Assessors will always need to exercise informed professional judgement in choosing the indicators that suit the particular context. Indicators or cues are best expressed as statements beginning with nouns (e.g. recognition of …., understanding of …., ability to …., demonstration of …., proficiency in ….).

Standards

A convenient name for the overall structure that taken together comprises a detailed description of professional practice: domains, elements, criteria, and indicators.

Attributes

These are personal qualities that underpin performance, and, hence, competence. Attributes include such things as capacities, skills, abilities, traits. Such listings are inevitably somewhat open-ended as identifying and describing human attributes is not an exact science.

Holism statement

The standards analyse professional practice into domains (units), which are sub-divided into elements (outcomes statements) for purposes of assessment, teaching, etc. However, it needs to be stressed that the standards need to be read holistically. This means several things:

Instances of actual practice often involve two or more elements simultaneously, e.g. taking a case history, communicating with the client, acting ethically, etc. So, in actual practice, the individual elements are not discrete and independent. For assessment purposes this means that performance on several elements can be assessed simultaneously.

In the case of new, unusual or changing contexts, the standards may need to be interpreted or adapted to the situation. Such contextually-sensitive situational understanding requires informed professional judgement in order to comply with the spirit of the competency standards.

They are also holistic in the sense that competence is not directly observable. Rather, what is observable is performance on a series relatively complex and demanding

professional tasks. Competence is a global construct that is inferred from observed performance on a sufficiently representative range of tasks and activities.

Appendix – Mapping of ACORB STANDARDS 2008: MODEL COURSE OBJECTIVES to Capabilities

This mapping exercise was carried out on a working copy of the capabilities document and therefore the final version may contain a few subtle differences to the mapping below as we identified any omissions or overlap. Any differences have been explored and the listings below do not significantly vary from the final mapping coverage and we are confident that the full range of the ACORB standards are fully mapped within the final Capabilities Document. The numbers listed are those on the copy of the capabilities document used and any variation to the final document will be very small. The mapping is not exhaustive, and was stopped when sufficient saturation was noted between items. In other words the ACORB standards will be reflected in more than the criteria listed below –which are the most obvious ones to be mapped.

ACORB Standards: Goals and objectives of an entry level osteopathic course

The goal of basic osteopathic education is to produce graduates with the knowledge, skills and attitudes to enable them to undertake competent general practice of osteopathy. They will be able to practise safely and effectively and refer appropriately. Their knowledge and skills will be firmly based on scientific principles. They will be self-directed learners and will be motivated to continually develop their knowledge and skills throughout their professional careers.

To achieve these goals, the following objectives can be identified:

I. Objectives relating to knowledge and understanding

Graduates completing basic osteopathic education should have knowledge and understanding of:

(a) the physical, biological, behavioural and social sciences, at a level not only adequate to provide a rational basis for osteopathic practice immediately following graduation, but also to assist them adapt to the changes in practice and assimilate the advances in knowledge which will occur over their working life;	6.7.1 /6.7.2 / 6.7.3 / 5.5.1 / 5.5.2 / 5.6.1 / 5.6.2 / 4.5.1 / 3.1.1 / 3.1.2 / 3.2.1 / 2.6.1 / 1.2.2 / 1.6.1
(b) the structure, function and normal growth and development of the human body and mind at all stages of life, the interactions between body and mind, the factors which may disturb these and the disorders of structure and function and behaviour which may result;	3.2.1 / 3.3.1 / 3.3.2 / 2.2.1 / 2.1.1 / 2.1.1 / 2.4.2 / 2.6.2 / 1.1.3 / 1.2.2 / 1.3.1 / 1.3.2
(c) the history, theory and underlying principles of osteopathy;	1.2.2 / 2.6.1 / 3.1.1 / 3.2.1 / 3.3.2
(d) the aetiology, natural history, prognosis and management of relevant disorders in children, adolescents, adults and the aged which may or may not respond to osteopathic care. The knowledge required to allow appropriate management including knowledge of all the commonly used manipulative techniques and other	1.2.1 / 1.3.1 / 1.3.2 / 3.5.2 / 4.1.2 / 2.6.3 / 1.3.3 / 1.4.4 / 1.6.1 / 2.5.1 / 3.3.1 / 3.3.2

treatment modalities used in osteopathic practice;	
(e) the recognition of and timely referral for joint or separate care of patients with conditions for which osteopathic treatment is inadequate or inappropriate or where it will delay urgently needed medical or other care;	3.1.2 / 3.2.2 / 3.3.1 / 3.4.1 / 1.1.4 / 1.2.3 / 2.7.1 / 2.8.1 / 2.8.2 / 2.9.3 / 3.5.2 / 4.1.1 / 4.1.2 / 4.2.1 / 5.3.1 / 5.3.3 / 5.3.4
(f) the principles of health education; disease prevention; amelioration of pain, suffering and disability; rehabilitation; the maintenance of health, the interaction of physical and mental health and the minimisation of disability in old age;	4.4.1 / 4.5.1 / 4.7.1 / 4.7.2 / 1.3.3 / 1.3.2
(g) the agencies that provide support and counselling of patients who have permanent disabilities or debilitating illnesses, have suffered severe physical or emotional trauma, have a notifiable disease or have a drug addiction or mental health problem, and the means of referral of such patients to those agencies.	3.1.3 / 3.5.1 / 3.8.1 / 4.1.1 / 4.3.1 / 4.4.1 / 4.4.2 / 4.5.1 / 4.7.2 / 5.6.1 / 5.6.2 / 5.3.1 / 5.3.2 / 5.3.3 / 6.5.1 / 6.7.3
(h) factors affecting human relationships, the psychological well-being of patients and their families and carers and the interactions between humans and their social and physical environment;	6.1.1 / 5.6.1 / 4.7.1 / 4.1.1 / 4.1.3
(i) the principles of public and occupational health;	4.7.1 / 4.5.1 / 6.1.1 / 6.6.1 / 6.5.1
(j) systems of provision of health care with their advantages and limitations including methods of meeting the health care needs of disadvantaged groups within the community;	6.5.1 / 5.3.4 / 5.5.2 / 5.6.1 / 5.6.2 / 2.3.1 / 2.3.2 / 2.3.3 / 1.3.3 / 3.7.1 / 3.3.1 / 2.9.1 / 2.9.2 / 2.9.3
(k) the costs associated with health care, and the principles of efficient and equitable allocation and use of finite resources;	4.6.1 / 4.6.2 / 4.5.1 / 4.4.1 / 4.1.1
(l) scientific method as applied to biomedical, behavioural and sociological research;	1.4.2 / 1.2.2 / 2.2.1 / 2.5.1 / 3.8.1 / 3.8.2 / 3.8.3 / 3.8.4 / 4.5.1 / 4.7.1 / 5.5.1 / 5.5.2 / 5.6.1 / 5.6.2
(m) the ethical standards and legal responsibilities of osteopathic practitioners;	6.1.1 / 6.2.2 / 6.3.4 / 6.4.1 / 6.5.1 / 2.8.1 / 2.8.2 / 6.6.1 / 6.7.3 / 2.9.1 / 2.9.3
(n) management of disorders of somatic origin relevant to osteopathic care.	1.2.1 / 1.3.1 / 3.1.1 / 3.1.2 / 3.2.1 / 3.2.2 / 3.3.2 / 3.4.1 / 3.6.1 / 3.7.1

2. Objectives relating to skills

Graduates completing basic osteopathic education should have the following skills:

(a) the ability to gather and record an accurate, organised and problem-focused patient history, including psycho-social factors, using appropriate perspective, tact and judgement;	1.1.2 / 1.1.3 / 1.1.4 / 1.1.2 / 1.2.2 / 1.3.3 / 1.3.5 / 1.4.1 / 1.5.1 / 1.5.2 / 1.6.1 / 2.1.1 / 2.1.2 / 2.3.1 / 2.4.1 / 2.4.2 / 2.7.1 / 3.5.2 / 6.5.2
(b) the ability to perform a physical examination and to	1.1.1 / 1.1.3 / 1.1.4 / 1.3.3

assess the general well-being and emotional state of patients;	/ 1.4.4 / 1.5.2 / 2.1.1 / 2.4.1 / 2.7.1 / 3.2.2
(c) the ability to apply judgement and perspective in choosing from the repertoire of clinical skills those which it is appropriate and practical to apply in a given situation;	4.1.1 / 1.2.2 / 1.1.1 / 1.2.5 / 3.7.1 / 3.2.2 / 3.4.1 / 3.6.1 / 3.5.2 / 3.3.2 / 3.5.2
(d) the ability to arrive at an appropriate diagnosis based on the objective evaluation of all available evidence;	1.2.4 / 1.2.3 / 1.2.5 / 1.3.1 / 1.3.2 / 1.3.3 / 1.4.1 / 1.4.2 / 1.4.4 / 1.5.1 / 1.6.1 / 1.6.2 / 3.1.2 / 3.3.1 / 4.1.1 / 4.1.2 / 4.1.3 / 4.2.1
(e) the ability to recognise early signs of physical or mental disorder and institute appropriate prevention or intervention measures;	2.3.1 / 4.1.1 / 3.5.1 / 3.5.2 / 1.3.4 / 1.3.3 / 1.3.2 / 1.6.1
(f) the ability to formulate a management plan in concert with the patient and/or carer;	1.3.1 / 1.3.3 / 1.3.2 / 1.6.1
(g) judgement in deciding on appropriate care by instituting the appropriate osteopathic management with treatment and/or referral to other health disciplines including mental health services. This includes treatment of the disorder, the relief of discomfort and counselling on alleviation of causal and aggravating factors;	3.1.3 / 3.2.1 / 3.2.2 / 3.3.1 / 3.3.2 / 3.4.1 / 3.5.1 / 3.5.2 / 2.6.3 / 4.7.1 / 4.7.2
(h) manual dexterity to carry out manipulative treatments and competence in other modalities of treatment;	6.2.1 / 3.8.1 / 3.7.1 / 1.1.1 / 1.2.1 / 3.1.4
(i) the ability to provide continuing health care by assessing the patient's progress; modifying patient care appropriately; planning effective follow-up care and by counselling and instructing the patient and family/carer, if necessary, regarding cause, management and prognosis;	1.2.1 / 1.2.4 / 1.3.1 / 1.3.4 / 1.4.1 / 1.5.1 / 1.6.1 / 2.3.1 / 2.4.1 / 2.5.2 / 2.6.3 / 3.5.2 / 2.4.3
(j) the ability to establish satisfactory relationships with patients by developing patient co-operation and showing concern and consideration to relieve anxiety, tension and discomfort;	2.4.2 / 2.4.3 / 2.8.1 / 2.9.1 / 4.1.1 / 4.3.1 / 4.7.1 / 4.7.2 / 4.6.1 / 4.6.2 / 6.3.4
(k) the ability to communicate clearly, considerately and sensitively with patients, relatives, carers, professional colleagues, other health professionals and the general public. This should include the ability to counsel sensitively and effectively and to provide information in a manner which ensures patients and families/carers can be truly informed when consenting to any clinical procedure. It also includes the ability to write referral letters, progress reports and medico-legal reports that are clear, effective and in proper form;	2.10.1 / 2.9.1 / 2.8.2 / 4.3.1 / 4.5.1 / 4.7.1 / 5.1.1 / 5.3.2 / 5.5.2 / 5.6.2 / 6.5.2 / 6.5.3
(l) the ability to perform common life-saving procedures such as caring for the unconscious patient and cardiopulmonary resuscitation;	4.8.1 / 4.8.2
(m) the ability to interpret relevant literature in a critical and scientific manner and apply these skills to ongoing learning and patient management;	6.7.1 / 6.7.2 / 6.7.3 / 6.5.1 / 5.6.1 / 5.5.1
(n) the ability to use the resources of an appropriate reference library to pursue independent inquiry relating to	6.7.1

clinical problems;	
(o) the ability to use computers for learning, literature searches and other applications in osteopathic practice;	6.7.1
(p) the ability to adapt to changes in relevant knowledge and practice and to incorporate such changes into their own practice;	6.7.2 / 6.7.3 / 6.5.1 / 6.5.3 / 6.6.1
(q) the ability to work as a member of a multi-disciplinary team where this is in the best interests of patient care;	5.3.2 / 5.3.3 / 5.3.4 / 5.4.1 / 5.5.2 / 5.1.1 / 5.2.1
(r) the ability and preparedness to participate in peer review and quality improvement process; and	6.7.1 / 3.8.4
(s) the ability to maintain patient records and other documentation according to legal requirements and accepted procedures and standards for comprehensiveness, legibility, accuracy and confidentiality.	6.5.1 / 6.5.2 / 6.5.3

3. Objectives relating to attitudes as they affect professional behaviour

During basic osteopathic education, students should acquire the following attitudes, which are fundamental to osteopathic practice:

(a) respect for every human being, with an appreciation of the diversity of human background and opportunities, and an unprejudiced attitude towards patients regardless of their background. There should be respect for and understanding of different cultural values and incorporation of that respect and understanding in all aspects of osteopathic practice;	1.1.3 / 1.2.5 / 2.1.1 / 2.1.2 / 2.3.1 / 2.9.3 / 3.2.2 / 6.1.1 / 6.5.1 / 6.5.3
(b) a desire to ease pain and suffering;	4.7.2
(c) a willingness to accept responsibilities for the patient's welfare; recognising personal professional capabilities and limitations; and relating effectively and knowledgeably to other health disciplines including mental health professionals;	5.6.1 / 5.5.2 / 5.6.2 / 5.3.3 / 5.3.1
(d) an acceptance of the responsibilities of an osteopath in relation to the care of the patient; the profession of osteopathy and the community;	5.5.1 / 5.2.3 / 4.1.1 / 4.1.2 / 4.1.3 / 4.2.1 / 6.1.1 / 6.3.2 / 6.3.3 / 6.6.1
(e) an awareness of the need to communicate clearly and fully with patients and their families or carers, and to involve them fully in planning management;	4.7.3 / 4.7.1 / 4.4.1 / 4.1.3 / 2.10.1 / 2.10.2 / 2.6.3 / 2.5.2 / 2.4.2
(f) a desire to achieve optimal patient care for the least cost, with an awareness of the need for cost-effectiveness to allow maximum benefit from the available resources;	4.6.1 / 4.6.2
(g) a consideration of the interests of the patient and the community as paramount, with these interests never subservient to their own pecuniary interest;	6.5.3
(h) a desire to work effectively as a team member with	5.2.2 / 5.3.3 / 1.6.1 / 1.6.2

other health care professionals;	
(i) an appreciation of their responsibility and a desire to maintain their standards of practice at the highest possible level by continuing education throughout their professional careers;	6.7.1 / 6.7.2 / 6.7.3 / 6.5.1 / 6.2.1 / 5.6.1 / 5.6.2 / 5.5.1 / 5.5.2 / 4.5.1
(j) an appreciation of the need to recognise when a clinical problem exceeds their capacity to deal with it safely and efficiently and to refer the patient for help from others when this occurs;	1.4.4 / 3.7.1 / 3.6.1 / 3.3.1 / 3.3.2
(k) a realisation that it is not always in the interests of the patient or their family to do everything which is technologically possible to make a precise diagnosis or to attempt to modify the course of a problem.	1.5.3

Appendix – assessment matrix

Assessment of second domain

CRITERIA / tool	WCBD	GDR	EBR	PORT	EMQ / SAB	SAQ	SC	ME	OSCE / SP	DOPS	Mini Cex / LC	Viva
2.1.1 Understands cultural and social factors relevant to communication and management of the individual	yes			yes							yes	
2.1.2 Communication is sensitive to and respectful of these factors						yes					yes	
2.2.1 A variety of questioning strategies are used, which are appropriate to the person and their cultural and psychosocial needs						yes			yes	yes	yes	

CRITERIA / tool	WCBD	GDR	EBR	PORT	EMQ / SAB	SAQ	SC	ME	OSCE / SP	DOPS	Mini Cex / LC	Viva
2.3.1 Communication is adapted to individual needs, such as in paediatric care, care of those with mental illness, intellectual disability or language difficulties				yes		yes					yes	yes
2.3.2 Where communication barriers exist, efforts are made to communicate in the most effective way possible									yes	yes	yes	
2.3.3 Deploys a variety of communication modes as appropriate				yes					yes	yes	yes	
2.3.4 Verbal and non verbal communication is adapted to the needs and profile of the individual				yes		yes			yes		yes	
2.3.5 Practitioner can employ and respond to non verbal cues as appropriate				yes		yes			yes		yes	

CRITERIA / tool	WCBD	GDR	EBR	PORT	EMQ / SAB	SAQ	SC	ME	OSCE / SP	DOPS	Mini Cex / LC	Viva
2.4.1 uses appropriate information gathering techniques to enable the patient to communicate their concerns, needs and goals.				yes		yes			yes		yes	
2.4.2 recognises the impact of patient concerns for clinical analysis and plan of care	yes			yes			yes	yes	yes		yes	
2.4.3 employs counselling skills appropriate for osteopathic practice in the context of the osteopathic plan of care						yes					yes	yes
2.5.1 Risks and benefits for management are identified and appropriately recorded	yes	yes			yes				yes	yes	yes	

CRITERIA / tool	WCBD	GDR	EBR	PORT	EMQ / SAB	SAQ	SC	ME	OSCE / SP	DOPS	Mini Cex / LC	Viva
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)		yes								yes	yes	
2.6.1 The goals, nature, purpose and expected outcomes of osteopathic intervention are discussed and agreed						yes				yes	yes	
2.6.2 Appropriate warnings regarding possible adverse effects are identified for the person and discussed					yes	yes					yes	
2.6.3 Options for the person's self care are identified and discussed, such as exercise, diet, lifestyle and workplace ergonomics		yes		yes	yes						yes	

CRITERIA / tool	WCBD	GDR	EBR	PORT	EMQ / SAB	SAQ	SC	ME	OSCE / SP	DOPS	Mini Cex / LC	Viva
2.7.1 Gathers information regarding the person's previous health care experiences of medical and allied health services		yes							yes		yes	
2.7.2 Recognises where this creates particular concerns for the person regarding their ongoing care, and acts accordingly				yes	yes						yes	
2.8.1 acts appropriately in situations involving personal incompatibility with the patient	yes	yes		yes							yes	
2.8.2 manages clinical challenges and uncertainty within therapeutic relationships appropriately	yes			yes	yes	yes	yes	yes	yes	yes	yes	
2.9.1 Recognises if patient trust or safety is undermined and acts accordingly				yes		yes					yes	

CRITERIA / tool	WCBD	GDR	EBR	PORT	EMQ / SAB	SAQ	SC	ME	OSCE / SP	DOPS	Mini Cex / LC	Viva
2.9.2 ensures appropriate levels of patient confidentiality throughout the osteopathic management of the patient		yes		yes		yes					yes	
2.9.3 continuously reflects on the respectful patient-centeredness of the osteopathic management of the patient				yes		yes					yes	
2.10.1 Communicates effectively through, or with, a patient's representative, carer, or family member as required				yes							yes	yes
2.10.2 Ensures appropriate consent is gathered on behalf of the patient and that effective review of communication is undertaken				yes		yes					yes	yes

Assessment of third domain

CRITERIA / tool	WCBD	GDR	EBR	PORT	EMQ / SAB	SAQ	SC	ME	OSCE / SP	DOPS	Mini Cex / LC	Viva

CRITERIA / tool	WCBD	GDR	EBR	PORT	EMQ / SAB	SAQ	SC	ME	OSCE / SP	DOPS	Mini Cex / LC	Viva
3.1.1. Understands and utilises an osteopathic philosophy in their examination, treatment and overall care of a person	yes	yes		yes	yes	yes			yes	yes	yes	
3.1.2. Arrives at an appropriate management plan reflecting these osteopathic philosophies	yes			yes		yes			yes	yes	yes	
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	yes				yes		yes	yes	yes		yes	yes
3.1.4 ensures osteopathic manual skills are appropriate to meet professional requirements			yes	yes		yes				yes	yes	

CRITERIA / tool	WCBD	GDR	EBR	PORT	EMQ / SAB	SAQ	SC	ME	OSCE / SP	DOPS	Mini Cex / LC	Viva
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	yes			yes	yes			yes				
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, over time	yes	yes		yes	yes				yes	yes	yes	

CRITERIA / tool	WCBD	GDR	EBR	PORT	EMQ / SAB	SAQ	SC	ME	OSCE / SP	DOPS	Mini Cex / LC	Viva
3.3.1 Conditions or situations that are not amenable to osteopathic intervention are identified, and appropriate action taken	yes			yes	yes		yes	yes	yes	yes	yes	
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	yes			yes	yes		yes	yes	yes	yes	yes	
3.4.1 where ongoing care of these types of patient (as in 3.2.1) is given, the management plan is adjusted accordingly	yes			yes	yes	yes	yes	yes	yes	yes	yes	
3.5.1 Obtains information and advice from suitable sources (osteopathic or other) as appropriate.		yes		yes							yes	

CRITERIA / tool	WCBD	GDR	EBR	PORT	EMQ / SAB	SAQ	SC	ME	OSCE / SP	DOPS	Mini Cex / LC	Viva
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				yes	yes	yes				yes	yes	
3.5.3 adapts ongoing care appropriately				yes		yes					yes	
3.6.1 recognises any potential conflicts that their personal professional approach may have for the patients plan of care, and modifies it appropriately	yes			yes		yes				yes	yes	yes
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	yes			yes		yes				yes	yes	yes

CRITERIA / tool	WCBD	GDR	EBR	PORT	EMQ / SAB	SAQ	SC	ME	OSCE / SP	DOPS	Mini Cex / LC	Viva
3.8.1 uses ongoing education, professional reading, discussion with peers, and reflection on treatment and management outcomes to continuously improve skills and efficacy		yes	yes	yes		yes						yes
3.8.2 Critically evaluates evidence by applying a knowledge of research methodologies and statistical analysis				yes	yes	yes						
3.8.3 incorporates an understanding of the strengths and limitations of an 'evidence-based' approach to treatment				yes		yes						yes
3.8.4 engages in quality assurance practices	yes	yes		yes	yes							yes

Assessment of fourth domain

CRITERIA / tool	WCBD	GDR	EBR	PORT	EMQ / SAB	SAQ	SC	ME	OSCE / SP	DOPS	Mini Cex / LC	Viva

CRITERIA / tool	WCBD	GDR	EBR	PORT	EMQ / SAB	SAQ	SC	ME	OSCE / SP	DOPS	Mini Cex / LC	Viva
4.1.1 Identifies and acts upon those factors which are the practitioner's responsibility towards the person's welfare	yes				yes		yes		yes	yes	yes	
4.1.2 the 'gate-keeper' and 'health-screening' roles of an osteopath as a primary healthcare practitioner are performed appropriately	yes			yes	yes				yes		yes	
4.1.3 Considers issues relating to patient's family and / or carers if appropriate	yes			yes		yes					yes	
4.2.1 identifies situations where other healthcare professionals may be required to perform these roles, in whole or part and acts accordingly				yes	yes	yes					yes	

CRITERIA / tool	WCBD	GDR	EBR	PORT	EMQ / SAB	SAQ	SC	ME	OSCE / SP	DOPS	Mini Cex / LC	Viva
4.3.1 Effective and informed working relationships are established and maintained with other health and community services or providers		yes		yes		yes						
4.3.2 Written and verbal communication with other health and community services follows accepted protocols and procedures		yes		yes	yes	yes						
4.4.1 Practitioner identifies suitable health and community services from which the person may benefit	yes			yes	yes		yes	yes				
4.4.2 Practitioner facilitates where appropriate the person's access to these services				yes		yes						

CRITERIA / tool	WCBD	GDR	EBR	PORT	EMQ / SAB	SAQ	SC	ME	OSCE / SP	DOPS	Mini Cex / LC	Viva
4.5.1 Practitioner maintains awareness of appropriate guidelines, ethical standards and other publications as issued by appropriate bodies and authorities			yes	yes		yes						
4.5.2 Practitioner ensures compliance, where required, with guidelines and ethical standards			yes	yes		yes						
4.5.3 Practitioner issues advice within these guidelines and ethical standards				yes		yes						
4.6.1 costs associated with healthcare for the patient, osteopath and healthcare system are continuously monitored and analysed				yes		yes						

CRITERIA / tool	WCBD	GDR	EBR	PORT	EMQ / SAB	SAQ	SC	ME	OSCE / SP	DOPS	Mini Cex / LC	Viva
4.6.2 maintains a commitment to efficient and equitable allocation and use of resources				yes		yes						
4.7.1 Identifies appropriate strategies concerning health education, public and occupational health, disease prevention for patient, or refers appropriately	yes	yes		yes	yes			yes			yes	
4.7.2 ensures plan of care reflects commitment to rehabilitation and amelioration of pain and suffering	yes			yes		yes		yes	yes	yes	yes	
4.7.3 ensures emphasis in patient education and involvement in plan of care conception and delivery				yes	yes	yes					yes	
4.7.4 a commitment to improving the health literacy of the patient is maintained				yes	yes	yes					yes	

CRITERIA / tool	WCBD	GDR	EBR	PORT	EMQ / SAB	SAQ	SC	ME	OSCE / SP	DOPS	Mini Cex / LC	Viva
4.7.5 maintains a commitment to preventative care strategies				yes	yes	yes					yes	
4.8.1 able to perform basic life-saving and first aid			yes			yes						
4.8.2 where regulatory authorities require first aid certification that this is maintained appropriately			yes									

Assessment of fifth domain

CRITERIA / tool	WCBD	GDR	EBR	PORT	EMQ / SAB	SAQ	SC	ME	OSCE / SP	DOPS	Mini Cex / LC	Viva
5.1.1 Effective network relationships are established and maintained				yes		yes						
5.1.2 Accepted protocols for written and other media records are followed to ensure information is relayed accurately and effectively.		yes							yes		yes	
5.1.3 recognises the value of a team-based approach within professional life				yes		yes						

CRITERIA / tool	WCBD	GDR	EBR	PORT	EMQ / SAB	SAQ	SC	ME	OSCE / SP	DOPS	Mini Cex / LC	Viva
5.2.1 barriers to communication are identified and addressed where possible, or alternative strategies employed as required	yes			yes	yes	yes						
5.2.2 engages in intra and interprofessional education			yes	yes		yes						yes
5.2.3 is committed to promotion of the (critically appraised) osteopathic contribution to healthcare to other health professionals and the general public			yes	yes		yes						yes
5.3.1 Appropriate practitioners and providers are identified for co-management or referral for the patient	yes	yes		yes	yes	yes					yes	
5.3.2 Appropriate protocols, are followed when co-managing a patient in any given situation, to the benefit of the patient				yes		yes						yes

CRITERIA / tool	WCBD	GDR	EBR	PORT	EMQ / SAB	SAQ	SC	ME	OSCE / SP	DOPS	Mini Cex / LC	Viva
5.3.3 Collaborative working arrangements with others are reviewed to ensure an efficient team-based approach to care of the individual				yes		yes						yes
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	yes	yes		yes		yes						
5.3.5 a commitment to ensuring continuity of care for the patient is maintained				yes		yes						
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				yes		yes						

CRITERIA / tool	WCBD	GDR	EBR	PORT	EMQ / SAB	SAQ	SC	ME	OSCE / SP	DOPS	Mini Cex / LC	Viva
5.4.2 fosters and supports clinical training opportunities that support interdisciplinary learning			yes	yes		yes						
5.5.1 undertakes appropriate continuing lifelong learning to ensure currency of understanding of osteopathic philosophy and professional ethos			yes	yes		yes						yes
5.5.2 critically reflects on the relationship between osteopathic practice and other healthcare systems, and the impact this has to overall patient care,				yes				yes				
5.5.3 a commitment to contribute to the guiding and nurturing of fellow and future osteopaths as they become guardians and custodians of the profession's philosophies, knowledge and skills			yes	yes		yes						

CRITERIA / tool	WCBD	GDR	EBR	PORT	EMQ / SAB	SAQ	SC	ME	OSCE / SP	DOPS	Mini Cex / LC	Viva
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			yes	yes	yes	yes						
5.6.2 critically reflects on the impact this has to overall patient care			yes	yes		yes						