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ORIGINAL ARTICLE

Enhancing clinical education in the private practice setting: A case study in osteopathy

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Abstract *Background:* This paper explores constraints, considerations and educational benefits around pre-professional student learning in a private osteopathic clinical practice.
Objective: To elicit faculty attitude toward and education in a private practice setting, to ascertain students' experiences of the educational value in attending a private clinic.
Methods: In this case study individual interviews were conducted with faculty at three universities and, separately, with the owner manage of the private practice in focus. Students attending the practice were surveyed.
Results: Eight students from three universities, a member of faculty of each and one private practice owner/manager participated. Hurdles for the university regarding clinical education in private practice include: practitioner availability versus student availability; practitioners without knowledge and skills for clinical education; resource intensive logistical and educational processes. Nevertheless, students regarded the opportunity highly and report substantial improvement in clinical competence in this one setting. A featured learning strategy was the student Personal Learning Plan.
Conclusion: From the student perspective, this particular case study shows the approach to clinical education achieved success in assisting their development of core osteopathic clinical competencies. Universities may be inclined to further encourage student participation in clinical education in private osteopathic practices if an accreditation system for osteopathic private practitioner-educators is developed.

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Implications for practice

Improving stakeholders' experiences in pre-professional students clinical education, in a private practice setting, may be achieved by:

- Standardising student learning outcomes and assessment tools.
- Developing best practice frameworks for osteopathic clinical education in a private practice.
- Providing training and accreditation for osteopathic private practitioner-educators.

Introduction

Three Australian universities offer entry-level training programs in osteopathy. Within each program the practical education component takes place predominantly in university on-campus clinics. In these ambulatory clinics, under the supervision of the contracted practitioner-educators, students take increasing responsibility in the osteopathic health care management of attending patients. Our term for this type of educational scenario is a 'student-led clinic'. The percentage of time spent in university clinics varies slightly across the three universities and, in addition, each also facilitates student's learning through private osteopathic clinics, here again, the amount of time varies.

Although we have an emerging body of literature regarding clinical education in Australian on-campus clinics, there remains a dearth of information regarding osteopathic education in private practices in Australia or from other countries. The aim of this paper is not to compare or contrast the differences between on and off-campus clinical education for osteopaths, rather it is to explore procedures and practices in one private osteopathic practice to inform a discussion regarding the quality and efficiency of student education in private practices. In Australia, we are mandated to undertake such Quality Assurance Measures of teaching environments[1] to enhance graduate learning outcomes.

Several theories underpin student education in a professional workplace. For example, *Situated Learning*[2] posits that learning comes from social interaction and collaboration in an authentic activity, context and culture. *Community of Practice* Theory[3] suggests learners learn from being with like-minded individuals who embody certain beliefs, behaviours, and practices — novices move from the periphery to the inner circle of the group as they feel comfortable and able. *Social Development Theory*[4] proposes that an environment in which a learner has a guide; a collaborator who scaffolds the learner's thinking; ensures learning is more significant. In osteopathic literature, it has been suggested the Cognitive Apprenticeship Model (CAM)[5,6] could account for a number of aspects of the on-campus student—practitioner—educator interaction within the on-campus clinic in student-led clinics.[7] Beyond that exploration, little is known about the theories and practices that underpin osteopathic clinical education during either on or off campus clinical education. For that reason we need to explore the procedures, processes and practices that underpin student and practitioner educative interactions to be able to better address their individual preparation needs to enhance learning outcomes.

Learning outcomes

It is important that Australian graduates are prepared to take place as part of an international workforce and for that reason the Benchmarks for Training in Osteopathy[8] detail what is expected of graduates from any country. These outwardly align with the capabilities expressed in *Capabilities for Osteopathic Practice* in Australia.[9] University curricula are designed to develop the desired osteopathic capabilities — the clinical curricula focuses on providing opportunities for students to prove they can apply theory to practice. See Box 1 — the WHO Benchmarks for Training in Osteopathy.

Practitioner-educators

In Australia, osteopathic practitioner-educators are typically employed on short term contracts to work in university on-campus clinics. They are not required to have formal qualifications in clinical education although, in some universities, they are encouraged to do so. The on-campus practitioner-educator's work situation serves to immerse them in the university teaching and learning culture and their role requires them to understand and implement the curriculum. There are no such requirements placed on private practitioner-educators, nor do they have opportunities to engage in professional discussions with their peers about clinical education and their supervisory role.

In the Australian university clinics the student to practitioner-educator ratio can be five to one or

Box 1.

a. A strong foundation in **osteopathic** history, **philosophy,** and approach to health care;
b. An **understanding** of the **basic sciences** within the context of the philosophy of osteopathy and the five models of structure-function. Specifically, this should include the role of vascular, neurological, lymphatic and biomechanical factors in the maintenance of normal and adaptive biochemical, cellular and gross anatomical functions in states of health and disease;
c. Ability to **form** an appropriate differential **diagnosis** and **treatment plan**;
d. An **understanding** of the mechanisms of action of manual therapeutic (**MT**) and the biochemical, cellular and gross anatomical responses to therapy;
e. Ability to **appraise** medical and scientific **literature** critically and incorporate relevant information into osteopathic clinical practice;
f. Competency in the **palpatory** and **clinical skills** necessary to diagnose dysfunction in the aforementioned systems and tissues of the body, when an emphasis on osteopathic diagnosis;
g. **Competency** in a **broad range of skills** of **OMT**;
h. Proficiency in **physical examination** and the interpretation of relevant tests and data, including diagnosis imaging and laboratory results;
i. An understanding of the **biomechanics** of the human body including, but not limited to, the articular, fascial, muscular and fluid systems of the extremities, spine, had, pelvis, abdomen and torso;
j. **Expertise** in the **diagnosis** and **OMT** of neuromusculoskeletal disorder;
k. Thorough knowledge of the **indications** for, and **contraindications** to, osteopathic treatment;
l. A basic knowledge of commonly used **traditional medicine** and complementary alternative medicine techniques.

World Health Organisation Benchmarking for Osteopaths.[8]

eight to one or higher,[7] depending on the university whereas, in private practices, it is usual for one student to observe or assist one or more private practitioners in action. So, the potential for more student-centred education in a private practice is significant.

Osteopathic private practice in Australia

In Australia, osteopathic private practices vary from solo operations in a cottage style business to larger multidisciplinary practices among multidisciplinary health care teams.[10] The study reported:

> *'Osteopaths see patients with acute or subacute musculoskeletal problems which are predominantly spinal conditions. A significant proportion of these patients have one or more co-existing condition, largely of the cardiovascular and respiratory systems, along with mental health disorders. The majority of patients have a significant improvement within few treatments, with infrequent and minor adverse events reported'*[10](p.1)

Therefore, it stands to reason, students attending private practice will be exposed to the 'business of primary healthcare'. It is presumed also that time in a private practice augments on-campus clinical education by contributing to the development of students clinical schema regarding whether to treat, appropriate choice of treatment, prognosis, treatment plan and strategies for patient education, but, we have no literature to support our assumptions.

This paper reports on an exploration of student educational activities at one private practice and university faculty views, experience and considerations about student learning in osteopathic private practices. We envisage this will stimulate a wider body of research to assure quality — to identify best practice frameworks to enhance osteopathic clinical education outcomes in Australia and other countries.

Aim

The aim was to explore university faculty considerations of osteopathic education in a private clinic, procedures and processes, and students experiences and perceptions of the educational value from their attendance at one private osteopathic clinic.

Method

A case study approach was adopted and three sources of data collected. University faculty and the practice owner manager-educator were interviewed and, students observations of multiple episodes of teaching were explored through an online survey. The study was approved by the SCU Human Research Ethics Committee.

Faculty interviews sought answers to general questions about the inclusion of clinical education in private practices in the curriculum, the learning outcomes, questions about the use of student Personal Learning Plans, assessments, evaluations of placement and feedback to the university.

The design of the student online survey was informed by the literature on expectations of osteopathic clinical education[7,8] and, doctoral research exploring physiotherapy students clinical education experiences.[11] Face and content validity was established by means of expert development and scrutiny of the measure via a pilot with staff at the practice and by an earlier cohort of students at the private practice.

The survey asked students a range of questions including demographic data and to indicate the type(s) of learning activities they participated in during their time at this practice. Quantitative style questions explored the extent to which they felt they had advanced in their osteopathic competencies stated earlier.[8] Students were asked to indicate the degree to which they felt they had improved on a 3-point Likert Scale with the responses options of:

I have made:

1 *No advancement*,
2 *Some advancement*
3 *Significant advancement*.

Open-ended questions explored student's perceptions of the differences in learning in a private practice compared to the university on-campus, student-led clinic.

The owner manager-educator of the private osteopathic practice where the case study took place is one of the authors (BF). The owner manager-educator was interviewed by KM on several occasions throughout the concept and implementation of the project as this allowed for new questions that arose during the discovery and analysis phases of the project to be explored.

Recruitment of participants

Faculty at the three Australian universities were contacted by a research assistant and invited to participate in a short interview, by phone, at a convenient time, or to respond in writing to a set of questions. Students enrolled in osteopathy programs of study at Southern Cross University (SCU) (Lismore, Australia), RMIT University (Melbourne, Australia) and Victoria University (Melbourne, Australia), self-selected to attend the osteopathic clinic in focus. Once there, they were provided a Participant Information Statement by clinic administration staff and a link to the online survey, developed in Qualtrics. Consent was inferred on return of a completed online survey at the end of their placement.

Data analysis

Both authors manually analysed the qualitative data from both student surveys and faculty interviews and where interpretations varied, discussions were held until a consensus was reached. Faculty responses were contrasted and individual institutional differences and similarities identified.[12] Interpretations were returned to faculty for member checking. Themes generated from both sources of the qualitative data are presented below together with pertinent quotes. Given the small numbers of respondents to the student survey ($n = 8$, 100% response rate) quantitative data was entered into Excel spreadsheet from which descriptive statistics were generated.

Findings

The perspective of faculty

One member of faculty at each of the three universities responded. They regard it important that pre-professional learners undertake clinical education in private practices and they each differ in their approach. University A proactively encourages but does not mandate student learning in private practices whereas Universities B and C allocate a certain number of hours for such events. University C reported 72 h over the two years are dedicated to education in a private practice.

Faculty identified a number of *barriers* to developing student placement opportunities in private practice. They are: are:

- The construction of the curriculum, timetabling and course attendance requirements — student availability vs practitioner availability;
- Distance students need to travel;
- If students spend all their time in one clinic, it limits their exposure to different ideas:
- Finding practitioners who are willing and suitable to take on students;
- Private practitioner-educators do not typically engage in professional development activities re clinical education and this is thought to

negatively affect the quality of the student learning experience;
- Making the educational arrangements for a placements is time and resource intensive; and
- Physical resources for adequate student learning at the placement.

Faculty view the *benefits* to clinical education in private practices are:

- That it promotes clinical reasoning and increases student exposure to patients in a private practice setting;
- Can act as a career pathway; and
- Is an opportunity to create mentor—mentee relationship between registered osteopaths and students.

Expected learning outcomes

University A's learning objectives are the same as those for the on-campus clinic. University B's learning outcomes for the final year *Internship Program* are to:

1. *manage a patient consultation to identify the problem, develop a working diagnosis and select a treatment regime that considers the presenting problem in its entirety with consideration for ethical, practical and pragmatic concerns*;
2. *develop a management plan and prognosis that sets short, medium and long term goals, and takes into account all aspects of the patient's problem including lifestyle factors*;
3. *undertake a supervised treatment that uses appropriately. The wide variety of skills developed thus far within a reasonable time, and includes the principles of practitionership and the basics of running a practice; and*
4. *maintain legal (accurate, clear, legible) patient histories, write clear and accurate referral letters, requests for special examinations and basic medico-legal reports*;

Whereas, University C's learning objectives for *private practice* clinic are to that the student should demonstrate:

1. *the diagnostic process in a specific case context*;
2. *professional behaviour and attitudes, including time management, data recording and reliability; and*
3. *appropriate reflective clinical practice skills*.

Teaching approach

The universities advocate the use Personal Learning Plans (PLP) prior to attending a private practice. Although, University B said PLPs are 'incredibly valuable' and University C said:

> *'It is a great way for the students to take responsibility for their own learning and acknowledge their strengths and weaknesses, it also allows for the assessors and educators to structure specific learning tasks for the student'*

At Universities B and C the student's learning from time in private practice is assessed by the supervisor and self-reflective activities (University B) and by faculty by means of portfolio of evidence or a reflective assignment (University C). At both institutions, these are formative assessments — and each university says this is an area identified for improvement.

The student's experience of clinical education is evaluated in general terms at University A and B by conversations between students and faculty. Whereas it is explored by student reflections at University C. Student insights and feedback are not offered back to the participating practitioner educators by University A and C. University B has a mechanism to do so, but report that it rarely happens.

Going forward, Universities B and C are focused on improving assessment of students work and practitioner feedback loops. University A said the quality of supervision and learning offered is a concern. University A commented:

> *'There needs to be an understanding that we try not to create unnecessary hurdles, making compulsory placements is something that the university can't control. If students cannot get access to placements and we require it as part of our program it creates a liability for the university.'*

And that;

> *'Until there is an actual agreed or regulated set of providers who are guaranteeing places to students then you could perhaps make it compulsory but until that is not the case we basically have to make it an optional activity for students even though I think it's a good idea and most students would do it for the opportunity.'*

In a similar vein, University C said things could be improved by, 'establishing accredited clinics, which could take larger numbers of students'.

The owner manager-educator's perspective

The owner manager-educator has formal qualifications in clinical education and all other practitioner-educators in the clinic have been engaged in student education for some time. He purposefully selects staff who embrace the clinics' culture of life-long learning, peer and professional support, and this facilitates students access to a range of enthusiastic and skilled educators in three manual therapy disciplines.

The owner manager-educator reports patients are fully informed and give consent to a student's presence in the clinic and consultation room. It is evident to him patients are favourable toward student's presence in a consultation — they regard it as a sign that the practitioners working in the clinic are held in high esteem in the osteopathic profession.

The owner manager-educator reports educational procedures and processes are purposefully structured and informed by the contemporary education literature, in particular Cognitive Apprenticeship[5,6] and Personal Learning Plans.[13] The education strategy emphasises the use of a student's Personal Learning Plan,[13] developed by the student prior to their attendance at the clinic and subsequently shared among all staff to frame the student-centred teaching and learning approach.

The student perspective

Eight students responded to the online survey (which constituted a 100% response rate — all the students who attended the clinic for education during 2014—2015). See Table 1 for the list of students, university, year, and the number of days they each attended this clinic for placement. Student self-reported participation in educational activities on offer in the practice, see Table 2.

Table 2 shows all students were engaged mainly in observing practitioners, de-briefing discussions, and self-reflection during their attendance at this clinic. Table 3 presents the scores allocated by each student when asked to indicate the main areas of learning. Data show most students report some improvement in all areas, however, the most significant improvements across the eight students are in:

- *ability to form diagnosis and treatment plans*,
- *palpatory and clinical skills and*
- *range of OMT* [osteopathic manipulative therapy].

Sub-group analysis (not shown) indicated fourth year students reported developing competence in their *osteopathic approach to health care* and an *understanding of the basic sciences within the context of the philosophy*. Whereas the fifth year students had broader learning experiences which is likely reflected their interests at the later stages of their university learning.

When asked to comment on what was different about learning in a private practice from learning in the on-campus clinics, one student remarked that it helped him/her better understand the curriculum offered at their university:

> *'It was much more dynamic and real-life. It brought to me a clear understanding of the process involved in treating people as an osteopath and the reasons behind the structure of my course. Seeing patients who were in pain and hearing their stories gave weight to the importance of my being competent as an osteopath and knowing exactly how the body should be functioning as well as identifying signs and indications of disease.' (Student 3)*

Table 1 Student response data.

Student	University	Year enrolled	Days in attendance at the private practice
1	RMIT	5th	12
2	SCU	4th	2
3	VU	1st	Unspecified
4	SCU	4th	2
5	SCU	4th	2
6	SCU	5th	2
7	SCU	5th	4
8	SCU	5th	5

RMIT — RMIT University. SCU — Southern Cross University VU — Victoria University.

Table 2 Student's self-reported participation in educational activities offered within the private practice.

Student	1	2	3	4	5	6	7	8
Observations of practice	x	x	x	x	x	x	x	x
Co-treating	x						x	x
Consulting	x							
Briefing sessions	x	x		x	x		x	
De-briefing sessions	x	x	x	x	x	x	x	x
Scholarly discussions with other staff	x	x			x		x	
Scholarly discussions with other students	x	x		x	x		x	
Self-study	x	x		x	x			x
Self-reflection	x	x	x	x	x	x	x	x

Table 3 Aggregation of student self-reported areas of improvement against WHO competencies.

($n = 8$)	No advancement	Some advancement	Significant advancement
Osteopathic philosophy		3	5
Understanding basic sciences		5	3
Ability to form diagnosis/ treatment plans		2	6
Understanding MT		5	3
Appraise literature	2	3	3
Palpatory/clinical skills		2	6
Competent broad range OMT		2	6
Physical examination		4	4
Biomechanics	1	3	4
Expertise diagnosis/OMT	1	3	4
Indications/contraindications		3	5
Knowledge traditional/ complementary		4	4

Another student commented on the student-centred educational processes offered and the community learning environment. They said:

> *"This experience was extraordinary. The student clinic feels very sheltered from the 'real world' clinics that are running. It's an amazing clinic and I cannot wait to go back. It gave me the chance to be given individual advice about patient handling and ergonomics for my own body type and build, making sure that I don't hurt myself during treatment, something that isn't covered at student clinic. Nothing can beat working in a group environment with such skilled and experienced osteopaths! You are supported, encouraged and gaining knowledge every second. I love it!' (Student 6)*

Students were asked a general question about their overall experience. The first year student said,

> *'It was a worthwhile experience…I was able to get an understanding to what my career will look like at the end of my degree and understand why I am studying what I am…'(Student 3)*

The fourth year students said:

- *'I think this was the best experience of my university years to date.' (Student 2)*
- *'X and the Team were all very open and easy to talk to and ask questions…he cares what people learn.' (Student 4)*
- *'I observed a number of fascinating cases and spoke openly to senior practitioners.' (Student 5)*
- *'I love how this learning was centred around my learning'* (Student 4).

Whereas, the fifth year students said:

- *'Through my clinical placement I have experienced things and had a reflective learning experience that I could never have gotten from working in the student clinic.' (Student 1)*
- *'I was able to experience first-hand the role of the Osteopath in primary patient health care-…it highlights the importance of professional networks and working together to make sure the patient gets the best health care-…'(Student 6)*
- *'I highly value the experience of observations with the range of osteopaths treating a variety of patient's.' (Student 7)*
- *'I really valued the way in which patient education was such a prominent part of practice … I was able to take away a lot of practical skills in ways to talk to patients.' (Student 8).*

Discussion

Evaluating the effectiveness of clinical education environments is part of Quality Assurance.[1] The preparation for students' work-readiness and their employability skills is the topic of interest Australian wide and it is widely considered industry partners should be more involved in supervising students, providing feedback on student learning and workplace performance to inform the curriculum.[14,15]

Accordingly, osteopathic faculty at the three Australian Universities are keen that osteopathic clinical education in a private practice takes place. Each have identified barriers and benefits, and work is being undertaken to improve

procedures and processes to facilitate ongoing engagement between universities and industry.

University Faculty report that they do not use PLPs which, are becoming an increasingly common teaching strategy in clinical education in other disciplines.[13] Although not explored in osteopathy, the identified barriers to the use of PLPs are the increase in workload for teachers and students during the negotiation process and implementation stage.[13] Looking at the positive, PLPs encourage autonomy, in-depth learning and help develop the student's skills in critical refection on clinical practice,[13] skills required of all health professionals.

As anticipated by the owner manager-educator and in response to the purposefully designed in-house curriculum, students appreciated the student-centeredness of their experience. They each engaged in a variety of scholarly activities which extended their knowledge which is consistent with the other literature claiming students gain much from being in the workplace where the occupation is practiced.[16]

This small case study represents situated learning[2] in a community of practice.[3]

It appears the education strategy in the practice reflects the CAM,[5] in that the teaching methods appear to include modelling and reflection, the use of coaching, scaffolding, articulation, and exploration[5,6] although, this needs further exploration to be certain. Another positive finding, not anticipated, was the identification of a whole of practice support for student learning from the administration team, enthusiastic practitioners with patient support.

The educational strategy centres on the student sPLP negotiated prior to the students first day of attendance. The PLP is used as a means of empowering the student through developing their sense of agency — an important component of preparation for professional work.[16] The PLP facilitates a conversation between practitioner-educators and students during which they learn about each other and have an opportunity to clarify expectations to make the best use of what is typically a brief opportunity. Once agreed, the PLP is circulated among all practitioners in the practice who identify opportunities to enhance student learning. In the study, we did not explore the students' views of the value of developing their own PLP nor explore the content within the plans.

This case study revealed students learned a great deal from this particular opportunity to meet and engage with private practitioner-educators. Students reported they improved in their development of osteopathic competencies.[8] The improvement in ability to form diagnosis and treatment plans was anticipated given they were exposed to a wide range of different types of patients. However, it is interesting that they improved in palpatory skills as they were not necessarily working directly on patients.

This cohort of students was unanimous in that their experiences in the private practice supplemented their on-campus clinical education. They enjoyed being exposed to *real-life* in an osteopathic clinic which is the overarching aim. University faculty state procedures and processes for organising student education in private practices are onerous and they are keen to see the regulation of private education providers. It is reasonable to expect there could be an interest in this move given, that the Osteopathy Board of Australia Code of Conduct[17] page 14, states:

> *'Teaching, supervising and mentoring practitioners and students is important for their development and for the care of patients or clients. It is part of good practice to contribute to these activities and provide support, assessment, feedback and supervision for colleagues, practitioners in training and students.'*

Having an accreditation system for osteopathic private practitioner-educators interested in clinical education is likely to build a stronger education workforce as well as research to determine effectiveness and efficiencies compared to on-campus clinics.

Conclusion

This small group of students, from three Australian universities provided some evidence that the approach taken to clinical education did achieve positive learning outcomes. The students report the education provided was student-centred and, that, through the various activities, the progressed in their development of core osteopathic clinical competencies. There is a suggestion that the key component of success was the student's Personal Learning Plan.

Faculty from three universities acknowledge the potential benefits of pre-professional osteopathic student education in an osteopathic private clinics, though there are identified barriers. Faculty state their foremost concern is regarding the quality of the student's education experience and each university are working to improve the clinical

curriculum. There is a suggestion that the implementation of an accreditation system for osteopathic private practitioner-educators would encourage faculty member's efforts.

If the universities were to standardise student learning outcomes, assessment strategies and tools, at different stages of the curricula, in relation to learning in private practice, it will, potentially, improve the quality of the student's experience. Arguably, this would make it easier for practitioner-educators, who take students from different universities, to understand how to support student learning. Private practitioner-educator's views of student's competence then would be more consistent and this will potentially, assist them to give students appropriate feedback.

Future research

More research needs to be undertaken to explore clinical education in osteopathic private practices. Future research might explore if Cognitive Apprenticeship is the prevailing model of education in osteopathic private practice and, what competencies can be best developed in an osteopathic private practice. Further work needs to be undertaken to validate the observational measure used in this study.

Conflict of interest

None declared.

Ethical approval

Ethics approval was given by Southern Cross University Ethics Committee.

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