



Original Article

Expanding options: Supporting skills transfer from a post-graduate osteopathy program to clinical practice

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ABSTRACT

Background: Continuing education is a requirement for most health professions including osteopaths in Australia and other jurisdictions around the world. Osteopaths need to be sure that the time and effort spent on their ongoing education translates to practice and meets their needs.

Objective: Tutors on a postgraduate osteopathic course asked: as educators, how do we support students transfer skills developed from this program to their clinical setting?

Design, Setting, Methods and Participants: Students in postgraduate fee-paying osteopathic programs were asked to provide unidentified written responses to what advice or strategies they would use to transfer learning from a course to practice. Responses were collated, coded and analysed for themes to support a presentation outlining strategies to support learning transfer. Additional data collections underpinned review of the initial theme and category leading to saturation.

Results: The outcome was an over-arching theme: Expanding Options, supported by six categories that emerged from the data: Choice of Tools; Managing Time; Patient Selection, Developing Support Networks; Learning 'AT Stillness' and Building Trust & Confidence. The results were presented at a focus group type workshop on the post-graduate course.

Conclusion: The themes generated may be applied to other training programs. However, the limitation of the small data set, the specific nature of the course and that it teaches in an area that generates controversy within the osteopathic profession need to be recognised when reflecting on the utility of outcome.

Introduction

The continuing professional education and training industry is a global giant with expenditures in the billions of dollars per annum [1,2]. Ensuring that learning outcomes - skills and knowledge, end up in the workplace and impact on practice is the primary reason for much training [3,4]. Thus the positive transfer of skills and knowledge from programs delivered by teaching organisations is a critical [5] concern. Knowledge transfer is a complex matter [6]. Knowledge and practical skill transfer can occur between individual clinicians, teachers and students, and between organisations such as teaching groups, osteopathic practices or a professional association [7]. The knowledge and training that is to be consumed by the course participant for their use may be viewed as knowledge to be transferred to impact on their practice [6]. In the context of this paper, this refers to the movement of knowledge, skills and ideas from the knowledge source - the teaching group to the potential users, which in this instance is the course

participants for use in their clinical practice. Knowledge transfer may be deemed positive - where skills are transferred appropriately to the new situation, or negative - where skills are transferred erroneously or at a lesser skill level than expected; and neutral where no transfer occurs [8].

This paper considers a multi-day post-graduate teaching program offered by an Australian not-for-profit educational provider for pre and post-graduate osteopaths. The teaching program ran over 5 days (40-h) teaching osteopathy in the cranial field (OCF) using didactic lecture sessions and interactive practical demonstrations [9]. Continuing professional development or education (CPD) is compulsory for osteopaths in Australia, although the type of program is not specified. This program has been taught in Australia and New Zealand as the cornerstone program for this not-for-profit organization for more than 20 years, with related programs in Europe, the UK and the USA that have longer histories. It requires significant resources and commitment from both the teaching faculty and students with attendance fees in excess of AUD

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\$2500 plus a week away from usual work. This project developed at a course in Sydney, Australia from a request by the course director to the authors to facilitate an end of course 'Question and Answer' (Q&A) session. Both authors (DC and CM) who were tutors on the course, are osteopaths of more than 20 years clinical practice, they are experienced and qualified educators in both the undergraduate and post-graduate field, including teaching OCF. Both authors have been exposed to qualitative methods, DC through a PhD and CM with a master's degree.

Method

Both authors were asked independently to contribute to the Q&A session. DC decided to ask course students who had participated in a previous similar course: *'What is the most important advice you could give to participants about using OCF in their practices?'* CM had a similar idea for the Q&A session and asked course students *'What strategies will you use to implement your new skills from this course into your practice?'* When both authors realised that they shared a similar idea, they pooled their efforts to address the following question: *As educators, how might we support students transfer skills developed from this program to their clinical practices?* The underlying thesis being that course participants had already been positively transferring skills, such as from their undergraduate program and that the responses about experiences in taking new skills to practice might provide useful insights for the course participants when presented in the final day's Q&A session.

Qualitative methods 'provide a contextualised and deep understanding of the phenomena experienced by the individual or group.' [10]^(p117) The authors utilised Action Research because it impacts work practices and it 'supports the construction of research knowledge in a cyclical process' [11]^(p89) [12]^(p5). The authors collected and analysed the course student's responses to the questions noted above for emergent codes. Codes reflect condensed actions, ideas and reflections developed by the participants who have successfully positively transferred knowledge to their clinical practice. The authors contend that synthesising the emerging codes into categories and themes will produce practical and explicit strategies that support the phenomenon of skills transfer to clinical practice [5]. These strategies, when structured, could then provide the investigators with some practical examples to present to course participants to assist in positively transferring their newly acquired skills and learning to their practice and maximise the take home value of the course [13]. Action research supports changes in practice by producing a deeper understanding of the subject and generating strategies to improve the process [11,14]^(p561). The aim was to present and workshop these practical examples to the course students at the Q&A session.

Participants and data collection

Interviewee participants for this project were those enrolled in a 'Fundamentals' course who were all registered practising osteopaths with the Osteopaths Board of Australia. No identifying data was collected including demographic data, as this was initially a one-off event. The aim was to collect unidentified hand-written responses from all the course participants as time permitted, both within the constraints of the teaching and organising roles for the authors and the participation in workshops by potential interviewees. Within these constraints, in a convenient manner, data was collected from 13 of the 22 participants on the course. The data consisted of the respondent's hand-written answers collected on sticky notes (75 mm × 75 mm) to the following questions: *'What is the most important advice you could give to participants about using OCF in their practices?'* And *'What strategies will you use to implement your new skills from this course into your practice?'* All those approached agreed to participate providing written responses that took a few minutes each, for a total of 13 responses. There were no withdrawals or retraction of responses. The respondents were informed that their unidentified written responses to the question would be collated

for an interactive presentation in the Q&A session to all course participants, including the tutors, on the last day of the course and potentially other courses in the future.

A similar format was followed at two further similar programs. There were minor changes - using 125 × 75mm lined index cards to collect the written responses and second SurveyMonkey® to email all course participants allowing for anonymous responses. This final data collection did not support an interactive workshop. When the decision was made by the authors to further develop the project into a report University Ethics committee approval was sought and gained for the project (HRE15-091). The data collection and analytic process over three courses is outlined in Fig. 1 below.

Data analysis

A qualitative 'thematic analysis' [15] approach, underpinned by an epistemology of constructionism and an interpretive perspective, informed this project [10,16]. The authors met the night before the Q&A session to analyse the data which comprised hand-written sticky notes with eight responses consisting of one sticky note and five responses two sticky notes. The amount of writing varied from nine words (2 responses) to the majority with several sentences. Utilising an inductive approach, first pass analysis occurred with both investigators manually sorting, collating and grouping the responses. Initial coding was word-by-word and by phrase generating descriptive, in-vivo, initial and attribute codes [17]. Coding is used in the analytic process as it supports an in-depth interpretive analysis of strategies, shared experiences, approaches or processes and ideas that emerge as codes from the practitioners [10,18]. The emerging codes are the data which underpin the categories and themes [19]. The codes generate categories that reflect the condensed strategies of practitioners who modified and supported their behaviour (practice) change, either directly in relation to similar past courses or to other training and learning experiences. For the second and subsequent coding cycles the data were re-coded 'axially' [20]^(p147) to develop and refine the codes. Using an iterative coding process provides an opportunity to develop the emerging codes, whilst ensuring they continue to be grounded in the participants' data to ensure relevance and utility of the categories to the course participants. The resultant categories abstracted from the data are interconnected or work together to provide strategies to positively transfer the skills developed in the course support osteopathic clinical practice.

Rigour

The authors collaborated and discussed all aspects of the analysis and when the authors perspectives did not align discussion and consensus were employed to support decision-making. To support reliability the results were presented to course participants and tutors in the Q&A session as a feedback type or focus group, using PowerPoint slides. This presentation had two goals: first to support reliability by incorporating member checking via course participants reflecting, contributing, reviewing and providing feedback [21,22]; demonstrating to the course students and, most importantly the respondents, that a structured process was used for the project. The second goal was to meet the project's aim to support positive transfer by sharing the respondent's insights and transfer strategies. With each subsequent data collection, the categories were revisited and reviewed by the authors and course participants and saturation achieved [22].

Results

The results consist of six categories: *Building Trust & Confidence*, *Developing Support Networks*, *Choice of Tools*, *Patient Selection*, *Managing Time and Learning* "AT Stillness" and a single overarching theme entitled *Expanding options*. The titles for the categories were chosen as they emerged from the data. The authors decided to depict the results with a graphic (Fig. 2 below) as images provide a memorable and recognisable

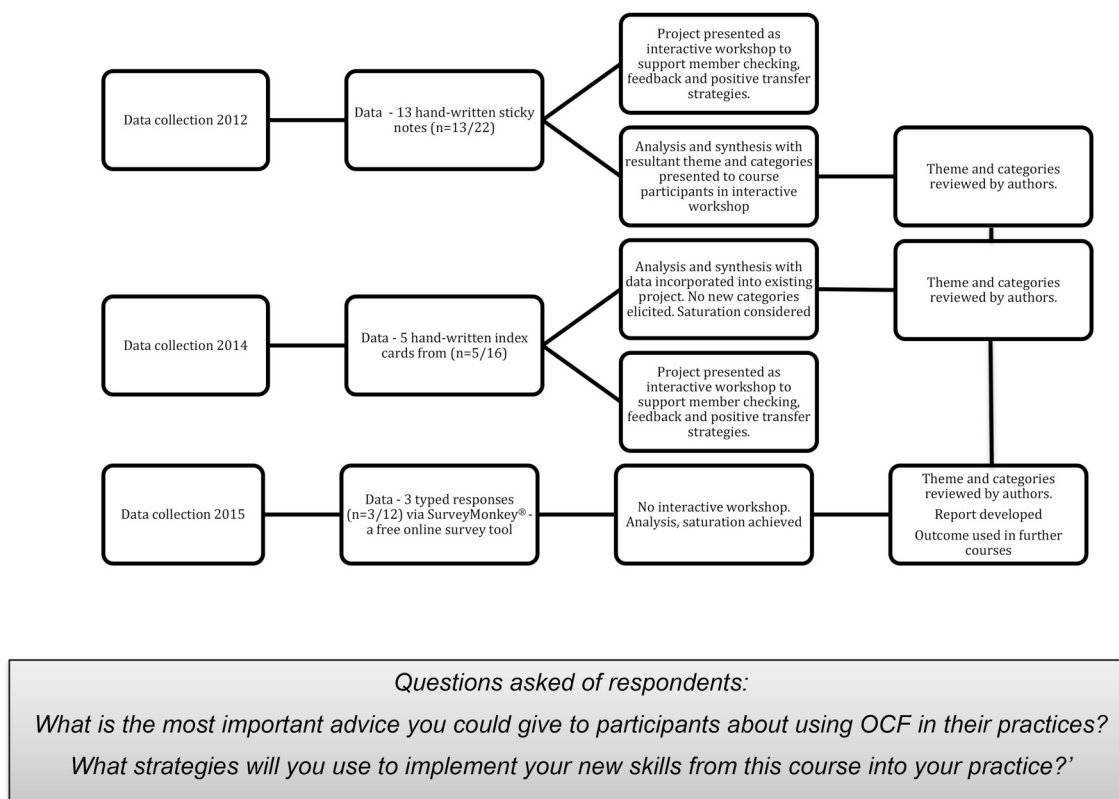


Fig. 1. Project data collection and analysis process.

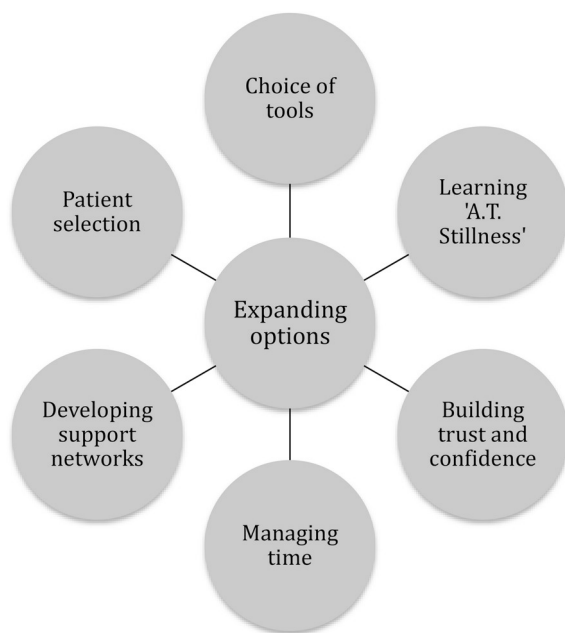


Fig. 2. Results: one central over-arching theme and six supporting categories.

outcome and it demonstrates the coordinating effect of the relationship of the overarching theme with the six categories.

Defining the categories

Building trust & confidence

Trust is a 'multidimensional concept' [23]^(p2) that Lee-Treweek expresses as operating in the place of certainty [24]. Uncertainty and

doubt surround the transfer of a new skill from the context where it was learnt by the novice, but not mastered or applied to the proposed context. This uncertainty can act as a barrier to the transfer of skills by reducing the perceived competence of the learner. Competence may be defined as 'seeing oneself as qualified, capable, fit, sufficient, adequate' [25]^(p44) which reduces uncertainty and improves confidence or self-efficacy. Higher self-efficacy has a positive impact on transfer [3,13].

Trust your hands, trust yourself and trust in the potency to do the work for you.

Respondent A7

Developing trust by building self-efficacy and self-trust in course participants, so that 'the competent individual's perceived abilities are roughly equal to their perceived responsibilities' [25]^(p44) is a key role for the tutors.

You'll be amazed at the changes you can get even through applying a minor force.

Respondent SM2

In the course subject to this report, where the student to tutor ratio is low (4:1), there is time to provide individualized or specific feedback and role-modelling to support individual circumstances to assist with building competence. Facilitators providing explicit strategies such as suggested by respondent A4 to *introduce in (sic) 2nd or 3rd session – but pre-empt it prior* with the client may help manage the potential adversity and ups and downs associated with a new skill. Explicit strategies can facilitate student self-efficacy.

Definitely trust that you are feeling something & with more practice it becomes clearer. Respondent A5

Respondents encouraged course participants to trust their hands, themselves and the self-healing processes of their patients:

Will look at trusting my initial impression, rather than spending too much

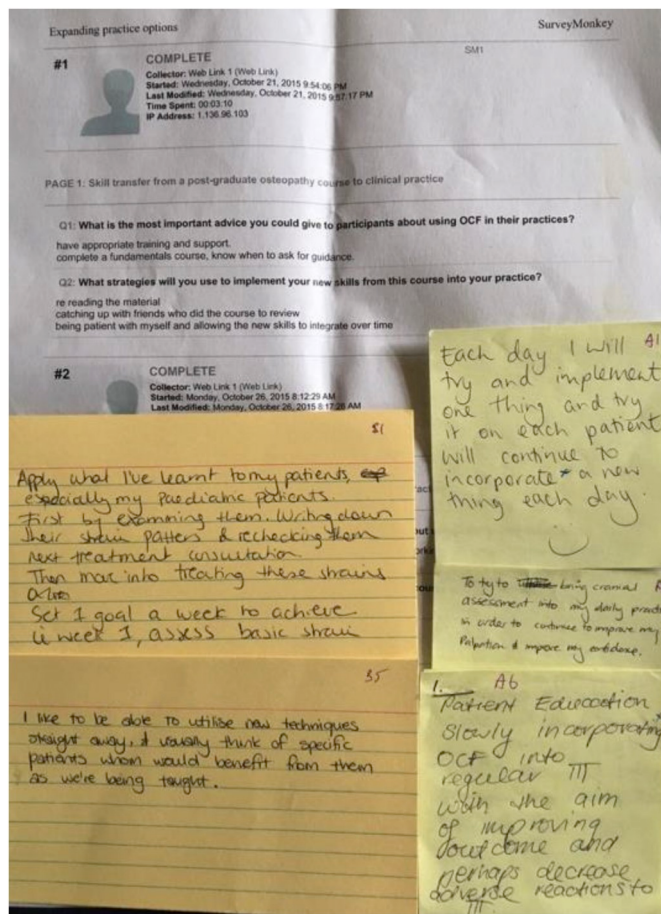


Image 1. samples of the three types of responses.

time over-analysing. Recognising the changes that occur initially. Trust your hands, it's what's happening. Respondent A12

Students practicing reflection with explicit strategies around trust for their context, can help them develop their reflective capacity and support positive transfer [26]. Respondent B2 indicating self-efficacy and reflection with *going away and doing some more reading to help solidify what was learnt* – a great strategy that supports tutors providing useful further reading tips to support this strategy. In summary:

Give it a burl + hope of the best! Respondent A13

Having trust and confidence in the process can support implementation of new skills into practice. Making the course goals clear will support potential participants decide if the course aligns with their practice [27] and if they should enroll.

Developing support networks

The categories naturally overlap as they represent facets of practice to which the new skills are to be transferred. The prior category – *building trust and confidence* focuses on individual self-trust and self-confidence. This category is about support networks and trust and confidence are still requisite, but in a broader context as workplace support is important in the positive transfer of learning to work [28] (p66–67).

Talking to colleagues about the main things I got out of the course.
Respondent B4

Professional and personal networks may provide assistance, with workplaces and networks having the potential to develop as communities of practice, and indeed the teaching course itself may be viewed as a community of practice. Course participants can join existing or

facilitate new networks and communities of practice.

Catching up with friends who did the course to review... Respondent SM1
Perhaps start a study group to network with/practice with. Respondent A10

Communities of practice may expand options for practice with new insights, learning and contacts [29]. Tutors cognizant of the value of networks or communities of practice can discuss this with course participants.

This discussion will encourage course participants to reflect on their networks, so that they can activate them to find assistance, support, answers to questions, problem-resolution strategies, ideal tips and useful implementation methods that can foster practice [30] and minimise the trips and tumbles associated with the application of new skills to practice. A community of practice can manage the uncertain practice of the novitiate helping the 'recursive transforming process' [26] (p51) and underpin self-efficacy once away from the program environment.

Choice of Tools

A new tool may be seen as an opportunity to expand treatment options. Tools are those in the osteopathic skills tool-bag that contains the assessment and examination procedures, and the therapeutic manual technique groups, such as those that are the subject of this educational course and others that comprise the osteopathic armamentarium. This was the single largest category, likely because of the key role of applying tools for osteopathic treatment. The responses comprised two sub-categories: case history and assessment, and treatment plan. Strategies to support case history and assessment procedures included:

- *altered and more relevant additional history questions;* Respondent A1
- *palpate PRM [primary respiratory mechanism] on more 'bodies' to build up normal library of mechanisms,* Respondent A2
- *assess cranial base, sacrum on each patient,* Respondent A6
- *to try to bring cranial assessment into my daily practice in order to continue to improve my palpation & improve my confidence.* Respondent A8
- *Apply what I've learnt to my patients, especially my paediatric patients. First by examining them. Writing down their strain patterns & rechecking them next treatment consultation.* Respondent B1

Respondents also offered specific strategies to support the incorporation of their new skills into their treatment plan.

I will start to incorporate techniques straight away – expand the practice I am already using. Respondent A5

Respondent A1 supports the need for *education/discussion to patients about cranial and its benefits*, and then goes on to *aim to use as a tool where appropriate in combo with other techniques*. Respondent A6 extends the education notion and gradual introduction *with the aim of improving outcome and perhaps decrease adverse reactions to treatment*.

Use techniques like OA release and sacral floats to end treatments.
Respondent A2

Providing course participants an opportunity to use the technique with the specific aim of to end the treatment and support the overall treatment process. Tutors can take these specific strategies and relate them to the individuals clinical context. Identifying where students might utilise their newly acquired skills and tools and ensuring that a course contains the necessary time for practice [31].

Patient Selection

The practitioner independently or through suggestions from their networks carefully selects the patient type, situations, conditions and diagnoses that they believe will support transfer of their new skills:

It's amazing, especially on bodies that don't cope well with the traditional direct osteopathic approach. Be gentle, be attentive to the mechanism, sometimes less is more! Respondent SM3

A popular strategy, exemplified by Respondent B5 is to ...*think of specific patients whom would benefit from them as we're being taught.* Respondent B3 is also suggests... *trying to think what/who the patients this may help.* Respondent SM3 suggests practitioners *discuss new technique opportunities with the specific patients and suggest we implement it if they are willing.* Educating the patient about proposed treatments and techniques, as noted by allowing the novice to gain consent to practice the skill in a patient centred manner. This also exemplifies the cross-over of categories as patient education also arises in Choice of Tools. Transferring the new skill into a selected situation may be viewed as a risk minimizing strategy or success supporting strategy, with the novice still able to resort to an established strategy if the new knowledge doesn't achieve the desired outcome.

Managing time

Time as a barrier to implementing a new tool into practice is a common concern for all novices. A lack of familiarity leads to a slower application, that with experience becomes faster, more efficient and perhaps even rapid and intuitive [32]. Actively scheduling time in the working day for step-by-step deliberate practice and reflection was a common suggestion and seen with Respondents A3, A9, A10, A11 and B4. It is a strategy to foster change to the previous behaviour allowing for the gradual integration of the newly acquired skill(s) or tool(s) into practice. As the novice skill level rises with practice and the challenge level remains constant the novice will start to experience flow. This brings in a different aspect of time management, with Csíkszentmihály and Csíkszentmihály noting that a common feature of flow is a distorted sense of time [25].

The time factor relates to both the individual incorporation of new practice skills, but also to the structured scaling or planning of the introduction of new skills across practice. Tutors need to support novices to be aware of time as a factor of practice and to model time to practise, as allowing time for course participants to structure deliberate practice will help them generate expert behaviours [32]. Time interlinks with other categories such as 'Developing support networks', which provide longer-term support for the roller coaster nature of implementing changes to practise.

Learning 'A T Stillness'

The category of 'Learning AT Stillness' is indicative of the context that makes these outcomes relevant to the target group – osteopathic practitioners. Whilst generic training elements support a training course, what focuses it to the course participants are the things that are peculiar or definitive to the relative practice, in this case osteopathy. Learning "AT Stillness" encompasses the cultural and specific aspects that make this course distinctive. Respondent A12 refers to Dr AT Still, with the title of this category emerging as an in vivo code from the first interactive workshop. Dr Andrew Taylor Still (1828–1917), physician and founder of osteopathy, continues to have special cultural significance for osteopaths. No doubt all professions have key figures that represent special attributes. So, although this category title is unique to the global profession of osteopathy, other health professions would have a similar representative and meaningful title for this category. It refers to aspects of manual technique practice: less of the doing or technical aspect of technique and more the broader non-technical intangible or emotive [33] components. These components include touch [34], 'listening' to the tissues [35] and 'hunch' or 'sixth sense' [36]^(p47).

Stillness. Respondent A7

Balancing of myself. Respondent A12

These comments are representative of mindfulness or single-minded

immersion, being in the zone or 'flow': a term used by Csíkszentmihály and Csíkszentmihály [25] to represent an optimal state of experience. The most common characteristic of flow is focused concentration, which brings harmony and a merging of activity and awareness [25], is 'to move continuously and fluently through the procedure' [37].^(p168) At the most challenging levels, flow leads to a transcendent state with the practitioner becoming one with the activity [25]. Applying the total mental resource to the task at hand to create an optimal state of concentration or flow is a practice found in experts. Utilising the total mental resource can enhance and maximise the outcome for all participants.

Expanding options – the overarching theme

Expanding options emerged as the overarching or holistic theme, as it musters the categories together. Each category provides a strategy for a practitioner to support their practice. Making elements of the practice explicit then allows the tutors and participants to focus on areas to provide a more efficient program focusing all efforts to support the positive transfer of skills to the individual's context. Making Expanding Options explicit may also be viewed as a hook or marketing tool to interest a practitioner to attend a program: the new behaviours presented in this course will help you expand your options for your practice. This holistic view is expressed by respondent A12 who quoted Dr Still, 'Dig On'. D.O. is the abbreviation for Doctor of Osteopathy – the qualification awarded to American osteopaths (not to be confused with the Diploma of Osteopathy - D.O. from the UK). Dr Still wrote 'D.O. means Dig On' in a letter to the President of the American Osteopathic Association in 1915 (see the 1948 A.A.O. Yearbook). It is a metaphor exemplifying the need for continued improvement of practice and a call from the founder of osteopathy to continue to develop osteopathic practice.

Discussion

Projects such as this report are not so much about discovering the meaning of what is occurring, but elucidating the process. Teasing out, then exploring and describing program attributes or elements documents them. This, in turn, provides an opportunity for tutors to actively utilise the categories and themes to enhance a training program. Relating the categories and themes to practice can support transfer of skills by discussing these aspects with course participants whilst they are developing new skills and need be support in their renewed novice state. Tutors actively encouraging reflection upon different transfer contexts during the educational course will support the positive transfer of this skill. Positive transfer, training design and role modelling were selected as elements for discussion, as they are considered key to the course being delivered and relevant to the aim of the authors.

Positive transfer

This project was to answer the following question: *how do educators support students transfer skills developed in this program to their clinical practice?* 'Many factors determine the transfer of skills' [37]^(p174). Grossman and Salas in their key reference identified three main characteristics that represent training inputs and hence impact on the outcome for the transfer of skills: trainee characteristics, training design and work environment [13]. Barriers to knowledge transfer from these three characteristics include low motivation of the trainees, training design that ignores the divide between academics and practitioners [9] and an unsupportive work place. The weight and relevance of these characteristics can be assessed by program designers relative to any program. In the case of this report student motivation was not an issue. However, strategies to address academic divide and unsupportive workplaces were relevant. Therefore strategies developed from this project were utilised by tutors to support course learning activities. Supporting trust with personal guided feedback, developing individual

strategies to link new tools to practice opportunities (Choice of Tools), provide suggestions for participants to identify specific support in the workplace such as aligning the reward structure [4], permission to change consultation times or the provision of coaching and mentoring [26] (Managing Time or Developing Support Networks). Following this project changes were made to subsequent courses for tutors to explicitly discuss with each student deliberate strategies to support the positive transfer of skills to clinical practice.

Training design

Ensuring that course design includes structured planning for transfer of learning in the program design (Expanding Options) is appropriate. Compulsory CPD means that all practitioners will at some stage need to consider how to transfer newly learnt material back to their practice. It is noteworthy, and fortunate to trainers, that most participants in the osteopathy field will have utilised skills transfer in other circumstances across their life [38] such as their undergraduate osteopathic program. This is relevant to this report, and to the authors thesis, as the students had all completed previous programs of some sort including their undergraduate degree(s) and some had also completed the course subject to this report. Acknowledging course participants circumstances in the program design and aligning learning activities with the three main characteristics identified by Grossman and Salas will support a holistic program framework designed to support learning transfer [39]. Designing learning activities that are relevant, but not exact, as course facilitators cannot know all the potential (work) contexts, is necessary. These do not need to be elaborate as low fidelity representative learning activities still support knowledge and skills transfer [40,41]. In the case of courses subject to this report tutors have time to discuss directly with students their needs, in addition a workshop utilising the graphic (Fig. 2) is scheduled for the whole group. Supporting students with options and applying skills in a variety of learning contexts, including activities that develop metacognitive skills, will support self-efficiency and is an important step for assisting self-learning and transfer of new skills [4]. Facilitating the course participant's prior capacity in a participant-centred program, supported by mixed learning activities and reflective practice needs to be a key educational goal for course designers to minimise barriers and support positive knowledge and skill transfer. This then ensures that all students benefit, maximizing time to focus on the gaining of skills, deliberate practice and reflection - a much more efficient approach for all, rather than a guess and grab for those other than the particularly astute.

Role modelling

A side-benefit of this project is behaviour modelling [13] – tutors reflecting on their practice and using an evidence-informed approach to develop a solution. Tutors gathered data collected from their real-world teaching practice and analysed those data in a structured rigorous process. The tutors then reflected upon the results and using their teaching practice, generated strategies to actively facilitate positive skills transfer to all participants professional clinical or teaching practice [5]. The sharing of the outcomes with the tutors and course participants is key to completing the cycle to inform participants clinical and teaching practice [26]. Engaging the participants in the developed strategies, but also enriching and strengthening the strategies by including the feedback and outcomes of the interactive group meeting in the outcomes was key to the projects aim. This reflective process in itself supports transfer as ‘thinking about how to use training in the work setting was a strong predictor of training transfer’ [4]^(p195). The results (Fig. 2) and the interactive workshop (Image 2), are an explicit acknowledgement of the two-way process with tutors and students transferring skills and knowledge between each other to educate all participants about positive transfer [42].

Relevance & issues

Limitations set by the small data set, study type and that it developed out of a teaching program rather than a deliberately structured research project are acknowledged. Qualitative studies have their own methodological criticisms [10], these were recognised by the authors who sought to support credibility and trustworthiness by providing an open process, collaborative analysis, review of data by participants, feedback and consideration of saturation – repetition of categories. Other relevant limitations are that only one type of course was selected to collect data from, and that the course teaches in an area that generates controversy within the osteopathic profession. This project deliberately focused on transfer of skills and not course content, so as to avoid this controversy. Some of the themes generated may be applicable to other training programs, however readers are best placed to ascertain if the outcomes provided can support their particular context. This project recognised the potential of positive transfer ideas from course participants may be relevant to other course participants. This thesis itself was not directly tested and would inform a follow up project: asking those who have listened to the presentation developed from this report if they feel it did support positive transfer of new skills to their practice.

Conclusion

Reflecting on practice is essential for today's health professional [43]. Identifying a need with a reflective cycle and role modelling a process that produces guidance and support to manage this need, supports daily professional practice and development [43]. This practice is key to contemporary osteopathic healthcare delivery with osteopaths requiring a spirit of inquiry [44] to assist with incorporating evidence to guide both clinical and education practice. Both investigators focussed on an aspect that they felt encompassed this goal: to provide practical strategies that would guide the participants to positively transfer their new or refined skills learnt in a supportive learning community back into a practice environment, where the learner is distant to the learning community that fostered the gaining of the new skills. It is appropriate for course participants to reflect on how the skills they have learnt in a course can be implemented or positively transferred to their clinical practice. Activities guided by tutors throughout a course that encourage reflection on the application of course learning activities to the participant's context, supported by appropriate course materials will encourage participants to reflect on strategies that might be useful for them to incorporate their new skills into their particular circumstances.

The authors believe that this project met their aim to provide strategies in the Q&A session to support positive skills transfer from a post-graduate osteopathy program. That is to expand practice options by transferring learning constructed in a classroom environment to the course participants' practice contexts. The outcome definitely provided skill improvement for the authors who were able to reflect on their educational practice. It also provided additional benefits, primarily in the role-modelling of an evidence-informed approach to teaching practice using a qualitative approach – methods that have been underused in osteopathy [22]. Osteopaths need to step up to evidence-in-practice in all areas of our practice and exemplifying or role-modelling this is critical. The outcome supported optimization of participant learning by placing explicit attention on the positive transfer of skills to practice [3] thereby providing value for all stakeholders and ensuring that training was cost-effective. In turn, this approach supports the future success of the course and is savvy business practice [28] because students will find value in the program and provide positive good-will that will justify the significant commitment by all involved [45] and underpin the continuing success of the course.

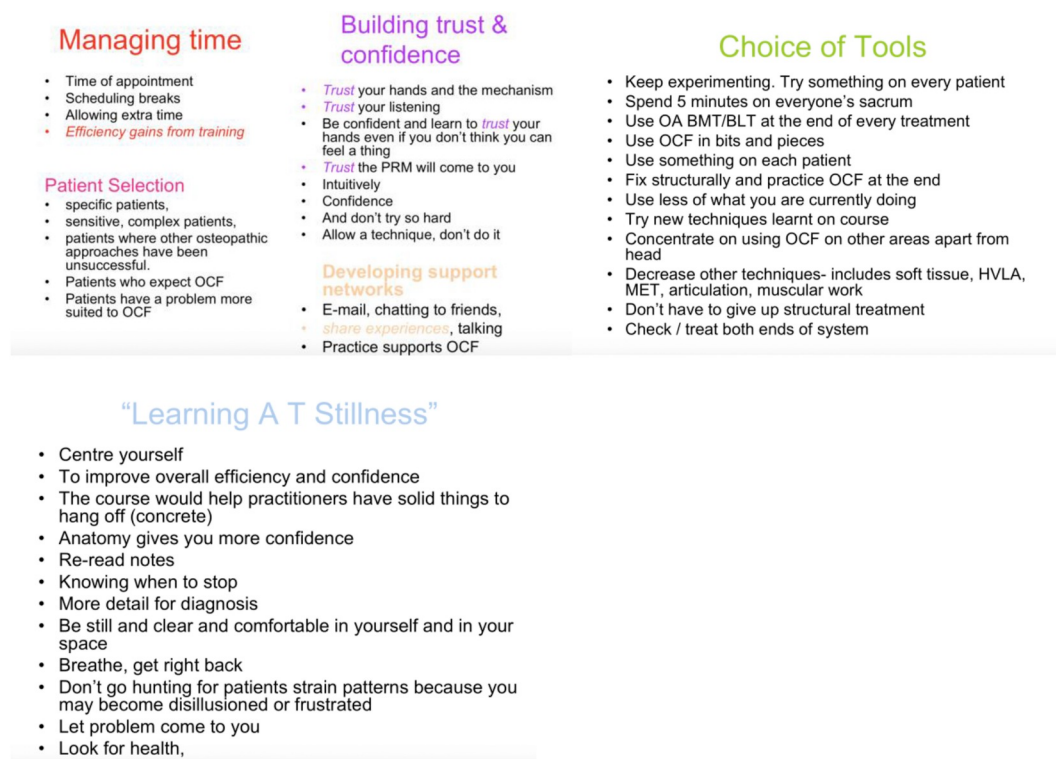


Image 2. Example of outcome from the first interactive workshop. Codes are from data collected and from the interactive workshop.

Contribution statement

Both authors made substantial contributions to conception and design of this study, acquisition of data, analysis and interpretation of data. CM drafted the article with DC revising it critically for important intellectual content. Both authors agree to be accountable to all aspects of the work and gave their approval of the version being submitted.

Conflicts of interest

None declared. Ethics approval obtained for this project from Victoria University

Implications for practice

Post-graduate osteopathic programs should design for positive transfer of learning.

Positive transfer learning activities can be low-fidelity.

Thinking about positive transfer of learning will facilitate it.

Appendix A. Supplementary data

Supplementary data to this article can be found online at <https://doi.org/10.1016/j.ijosm.2019.05.002>.

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