Developing clinical teaching capacities of midwifery students

Authors:

Ms Sharon Rance, RM BMid, Master of Clin Ed
Associate Lecturer, School of Nursing and Midwifery
Flinders University

Dr Linda Sweet, RN RM PhD
Associate Professor, School of Nursing and Midwifery
Flinders University

Corresponding Author:

Dr Linda Sweet, PhD
Associate Professor, School of Nursing and Midwifery
Flinders University
PO Box 2100 Adelaide 5001
Office Phone: (61) 8 8201 3270
Mobile Phone: (61) 4 0483 7665
Email: linda.sweet@flinders.edu.au
Abstract

Background
Competency Standards in Australia articulate that the midwife must be able to contribute to the professional development of themselves and others. Few undergraduate health professional curricula currently incorporate content for the development of specific knowledge and skills required for clinical teaching. This project aimed to understand and enhance midwifery students’ preparedness to assume their future clinical teaching responsibilities.

Methods
Design-based research was used to implement an educational intervention aimed at developing clinical teaching skills through a peer education session between 1st and 3rd year students. The perspectives of 30 undergraduate midwifery students about their preparedness for their teaching role and the intervention were obtained through 3 focus groups. A thematic analysis of the data was undertaken.

Findings
Three themes were identified encompassing the research aims and objectives; ‘Co-creating a culture for learning’, ‘reciprocal teaching and learning’ and ‘developing clinical teaching capacities’. The findings indicate that the midwifery students had a holistic understanding of their responsibilities in clinical teaching in the workplace. They were able to identify ways in which their teaching capacities were being developed through their clinical experiences and the curriculum, both intended and hidden.

Conclusions
Despite limited educational activities for clinical teaching, the midwifery students made explicit connections of the relational interdependence of workplace-based experiences and their learning. Students were clearly able to identify ways in which their own learning experiences and the culture in which this learning is embedded, assists them to develop clinical teaching skills, ready to support the next generation of midwifery students.
Problem
Graduate health professionals, including midwives, are ill prepared for their future clinical teaching roles.

What is Already Known
Clinical teachers are essential to effective workplace-based learning.

Effective teachers need to learn the complexities of the learning process to maximise their teaching.

What this Paper Adds
Midwifery students describe the importance of co-creating a culture supportive of learning.

Midwifery students recognise the interrelatedness of workplace culture, their engagement in learning opportunities, and clinical teaching and learning outcomes.

Midwifery students learned a great deal of teaching capacities as a ‘side effect’ of their midwifery education, but valued a peer to peer teaching session to enhance their teaching skills.
INTRODUCTION

Students of all health professions learn to integrate theory to real life clinical situations by working under the supervision of clinicians who are responsible for facilitating their learning, during exposure to, and involvement in direct patient care.[1-4] It has been stated that “the quality of clinical supervision is the key influence of the clinical placement and ultimately on the calibre of the health practitioner” (pii),[1] and with this premise in mind, Health Workforce Australia (HWA) has developed the National Clinical Supervision Competency Resource.[2] The resource provides clear benchmarks for clinical supervisors, and has been informed by principles of clarity, quality and culture, which are elements that HWA recognise as fundamental to the provision of excellence in clinical teaching and supervision.[2] This research project aimed to investigate midwifery student preparedness for their future clinical teaching role, and to trial an intervention as a means in which this could be enhanced.

BACKGROUND

The development and delivery of a program that supports the training of clinical teaching skills to build a workforce of highly competent health professionals is a vital strategy to create a sustainable workforce in Australia.[3, 5, 6] Clinical experiences have the potential to influence decision-making about future employment in our health sector.[7, 8] and the relationships between students and clinical supervisors can have long term effects on the way the student integrates to professional practice.[9] It is therefore important that midwifery students have positive learning experiences, particularly in the workplace. For midwifery students in Australia, workplace-based learning equates to approximately 50 percent of their educational experience,[10, 11] and therefore is a substantial component of their learning affordances.
Learning to teach, and teaching to learn

The National Competency Standards for the Midwife\textsuperscript{[12]} competency 13.2 clearly states that the graduate midwife must be able to ‘contribute to, and evaluate the learning experiences and professional development of others’. This includes supporting students to meet their learning objectives and being able to share knowledge and skills with multidisciplinary colleagues.\textsuperscript{[12]} Similarly, conduct statement 10 of the Code of Professional Conduct for Midwives in Australia states that midwives should contribute to the professional development of others.\textsuperscript{[13]} Whilst such requirements are consistent across health professions, there is a general agreement that graduate health professionals are ill prepared for such a role.\textsuperscript{[5, 14-17]}

The role of clinicians in teaching is essential to the development of both the clinical skills and professional behaviours of undergraduate medical, nursing, midwifery and allied health students.\textsuperscript{[1-4, 6, 14, 15, 18-20]} Nevertheless, there are few curricula of undergraduate health professions that currently incorporate content that is relevant to the development of the graduate’s skills and knowledge of clinical teaching.\textsuperscript{[14, 21-23]} Without education in clinical teaching, one’s own personal experiences of teaching and learning are known to guide their approach toward clinical teaching.\textsuperscript{[22]} This may not provide the best outcome for professional progression and personal improvement.

Although subject expertise is important, clinicians also need to understand the complexities of the learning process to help maximise clinical learning \textsuperscript{[17, 24, 25]}. It is recognised that very few students or health professionals are fully aware of the multifaceted nature of clinical teaching.\textsuperscript{[3, 18, 21]} Although clinical supervision and teaching is a requirement of registration, it should not be assigned to those who are unprepared and unable to perform it well.\textsuperscript{[4, 18]} Positive clinical learning environments may only be fostered when the complexity of the role and function of clinical teaching is recognised. Specific education that prepares clinicians in the competent delivery of teaching, such as teaching a procedural skill or giving feedback, and provides understanding of the learner’s response to this teaching, is paramount to a positive experience for both learner and teacher.\textsuperscript{[24, 25]} With teaching,
comes learning, but unfortunately few people recognise that teaching a skill offers opportunities to consolidate one’s own practice and knowledge.[23]

THE RESEARCH PROJECT

Currently, the Bachelor of Midwifery program at one Australian university incorporates an online module related to clinical teaching and mentoring in a final semester 3rd year topic, but does not offer a ‘hands on’ component where students can apply skills that will equip them for clinical teaching. Furthermore, there is also no formalised program within the curriculum which enables students to work together in a peer teaching and learning format. Given this, we had reservations about the preparedness of our graduates to assume their clinical teaching responsibilities upon graduation. The objectives for this research were threefold; 1) to identify the preparedness of midwifery students to assume their responsibilities for clinical teaching; 2) to identify the outcomes of a peer education clinical teaching intervention between 1st and 3rd year students; and 3) to identify ways to enhance student preparedness for their future clinical teaching responsibilities.

METHODS

Design-based research was the chosen method to address the research objective due to its problem resolution focus.[26] Design-based research in the educational setting can be summarised as defining a problem, identifying solutions from within the available research knowledge, and applying them in field to refine and define the utility of the local solution, aiming for a more global applicability.[27] For this study, the identification of the local problem was the midwifery students’ preparation for their clinical teaching responsibilities upon graduation. The second step in the design based process is to design a potential solution and test the outcomes of an intervention.[28] For this purpose, structured tutorial teaching activities for 3rd year students, followed by peer education between 1st and 3rd year midwifery students was undertaken. Peer education is a recognised pedagogical approach which is prominent in medical education and provides a valuable means for students to develop the skills required for clinical teaching.[16] Educational design research does not ascribe to any particular
methodological approach but rather uses an iterative approach to improve the intervention following testing in the education setting.\(^2^8\)

**Project Design**

This project consisted of four components; three focus groups, and one structured tutorial with a peer education session. Focus groups were identified as an effective method of collecting data as the responses of one individual can elicit reaction and response from other members in the group,\(^2^9,3^0\) thus enabling rich, descriptive data to be gathered. Given the research objective was to investigate midwifery student preparedness for their future clinical teaching role, and to identify ways in which this could be enhanced, focus groups were seen as an appropriate method to capture diverse views.

The chronology of the project was as follows. Firstly, a focus group with 3\(^{rd}\) year students was undertaken to explore their perceptions of their preparedness to transition toward the responsibilities of clinical teaching upon graduation. This was intended to elicit their views on clinical teaching prior to any educational intervention. Secondly, an educational intervention was undertaken where the 3\(^{rd}\) year students attended a tutorial, aimed at providing them with simple teaching models they could use to enhance their clinical teaching. For this purpose, Peyton’s four step model for teaching skills,\(^3^1\) and Pendleton’s rules for providing feedback\(^3^2\) were used. The steps of these two models are shown in figures 1 and 2. Whilst there are many potential skill teaching and feedback models, given the time constraints and the novice nature of the learners, these were deemed appropriate models for this intervention due to their simplicity and ease of use. Following the tutorial, the 3\(^{rd}\) year students were asked to use the models to teach commonly performed clinical skills and give feedback to 1\(^{st}\) year midwifery students in a peer education session. The skills chosen included administration of injections, intravenous line priming and setting up for cannula insertion; these are skills that the 3\(^{rd}\) year students were expected to have competence in performing and ones that the 1\(^{st}\) year student had not yet been exposed to. The third component of the project was a focus group discussion with the 1\(^{st}\) year student participants immediately following
the intervention, to explore their perceptions of the peer education session. The fourth and final component was a third focus group undertaken with the 3rd year student participants 6 weeks after the intervention. This focus group aimed to explore whether the educational intervention and peer education session was perceived to have had any ongoing benefits for the 3rd year students, such as increased confidence or a greater understanding of their responsibilities of clinical teaching.

Ethics

Approval to undertake the project was received from the relevant Human Research Ethics Committee. Prospective participants were supplied with a letter of introduction and an information sheet. Participation was entirely voluntary and written informed consent was gained from all participants. Whilst all 3rd year students were expected to undertake the tutorial activities and peer teaching, their participation in the focus groups was voluntary. Due to the conflict of interest as tutor, the principle researcher did not facilitate the focus groups; this was done by the co-researcher, who had no active involvement in the 3rd year student program.

Participants

The all-female group of prospective undergraduate participants consisted of 14 x 3rd year and 60 x 1st year Bachelor of Midwifery students undertaking a three year Bachelor of Midwifery program. The ages of the participants were widely distributed, ranging from 18 to 55 years old. The peer education session was initially anticipated to be undertaken on a one to one basis. A request for 1st year student volunteers culminated in an enthusiastic response, with more than the required number of students interested in participating. After discussion with the 3rd year cohort, it was decided to modify the individual teaching session to be small group sessions, rather than one-on-one sessions.

Data and data analysis

All data collected was in the form of focus group discussions. All focus groups were audio recorded, and transcribed by a professional secretariat to enable accurate analysis. All transcripts were
reviewed by both researchers, and a thematic analysis of the key findings was undertaken. Thematic analysis is a widely used qualitative analytic method\cite{33} and was deemed an effective method for the analysis of the focus group data. The principal researcher performed the initial open coding of the transcripts and development of emerging themes, with the second researcher subsequently validating the coding and interpretation of the data to assist with rigour of the analysis.

RESULTS

Prior to the education intervention, five 3rd year students participated in the first focus group discussion. Of the 14 enrolled 3rd year students, 13 participated in the tutorial and peer education activities on the scheduled day. For this session, there were 24 x 1st year volunteer students for the peer education activity, from which 15 consented and participated in the focus group discussion. For the final focus group discussion, there were ten 3rd year student participants. This gave a total of 30 student participants across the three focus groups.

The objectives for this research were threefold; 1) to identify the preparedness of midwifery students to assume their responsibilities for clinical teaching; 2) to identify the outcomes of a peer education clinical teaching intervention between 1st and 3rd year students; and 3) to identify ways to enhance student preparedness for their future clinical teaching responsibilities. The analysis of the data resulted in three themes which encompass the research aims and objectives. The themes have been titled ‘co-creating a culture for learning’, ‘reciprocal teaching and learning’ and ‘developing clinical teaching capacities’. Several sub-themes were identified within each emergent theme, as displayed in Diagram 1.

Participant students were aware that once registered as midwives, they would be expected to provide clinical teaching, and they were able to link this inherent responsibility to the NMBA Competency Standards for the Midwife.\cite{12} While there had been no formalised education in clinical teaching, the 3rd year students suggested that prior to the intervention they could identify that their
skills in this area were developing. The 1st year students had considered that one day they would need to provide clinical teaching, but they claimed that developing the skills related to this was not yet feasible.

**Co-creating a culture for learning**

The participants demonstrated a well-grounded holistic view of their future responsibilities in clinical teaching, through clearly articulating the importance of participating in and *co-creating a culture for learning*. Through the theme of *co-creating a culture for learning*, it is clearly evident that the midwifery students recognised the interdependence of the workplace culture and its impact on effective clinical teaching and learning, demonstrating high level holistic preparedness for their future clinical teaching role.

All participants recognised the importance of an effective culture for learning, and their current and future place within this concept. This notion was discussed in the context of work integrated learning in particular. Workplace culture has a dynamic influence on student learning outcomes and there were many factors that participants considered have both positive and negative effects on clinical learning and teaching, which they recognised will influence the way they will undertake their teaching responsibilities. The students believed that workplace cultures that value clinical teaching were rare, and there were substantial barriers to learning and teaching in the hospital system. Both 1st and 3rd year students recognised the inherent hierarchal structure within our current hospital system as playing an important role in contributing to the culture for learning, describing inhibition of learning through power imbalances. Effective learning can only be achieved if the learner feels safe and accepted under the supervision of the clinician, and as one student stated this is not always the case.

“...when we go on placement the scariest thing is having a midwife that doesn't really want to teach you. Like if you have a midwife that's disinterested, that's probably the hardest thing about being on placement, it's not like you get lost in the hospital or whatever, it's having a midwife that doesn't want to teach you” (1st yr student FG2)
Students suggest that often they stay quietly in the background during clinical placements for fear of aggravating negative responses from the clinicians. This passive approach may ‘keep the peace’ as a viable short term solution, however has potential detrimental effects on the quality of student learning.

“You’re trying so hard to not annoy or do anything wrong to justify the hostility. So you can’t learn anything”. (1st yr student FG2)

A supportive culture for learning was viewed as interdependent between the workplace culture and effective clinical teachers. Participants readily identified behaviours, skills and attitudes that were valuable for clinical teaching. These included effective communication, current knowledge base, evidence based practice, flexibility and professionalism. Participants’ identified the most important factor that enhanced clinical teaching ability was the clinicians’ own ability to recollect and reflect on their experiences as a learner. This was demonstrated in the peer education session, when the 1st year students commented on the capability of the 3rd year students to reflect on their own learning, in order to accommodate the 1st year’s learning requirements.

“She was very empathetic to being a student ... seeing us as peers and talking in that way ... aware of the things that are important when we’re out there. So what’s not going to make you look stupid, what’s going to be the right words, what are the things that you’re going to get stuck on, and making sure that they delivered that information through their own experience? So it was imperative to learning from my perspective”. (1st yr student FG2)

Being able to recall specific instances which contributed to either positive or negative experiences during their own learning, helped the 3rd year students to formulate their teaching in a way that was conducive to effective learning for the 1st year students. A 3rd year student recalled an experience that has contributed to the way she considers her role in clinical teaching:

“... you remember the sorts of things that were so daunting. I remember going into a hospital I’d never been in. I didn’t know where anything was. I didn’t have a clue. It was horrible, because I spent the whole birth feeling so lost and out of my comfort zone that I
didn't learn anything, because the whole time I was just trying to remember where everything was”. (3rd yr student FG3)

This student elaborated how this experience and her memory of how disempowered she felt, helped to shape the way she interacts with other students to enhance their learning. Participants discussed how clinicians who were able to recall what it felt like to be a learner, were able to teach in a tolerant and supportive manner, showing respect for the student and the process of learning. This capacity was supportive of a culture for learning.

Time since initial registration was not seen to be indicative of a midwives’ ability to teach, even though their own learning experiences may not have been recent. Students articulated that it may not be the recency of learning, but more so, the person’s ability to remember the feelings elicited through their own learning experiences and their own engagement with lifelong learning.

“I've worked with some older midwives who are really into professional development and have asked me to give them written feedback and those kinds of things. Then you get the ones who are more set in the ways, that they've always done it that way and don't respect you”. (3rd yr student FG1)

Knowledge was considered by students to be a vital attribute for clinical teaching, but students were in agreement that knowledge alone is insufficient to enable effective teaching.

“I think somebody who is truly focusing on their own professional development will automatically start teaching other people anyway because, if you know that you have the most up-to-date knowledge, you have the most evidence-based practice, you want other people to practice in the same way”. (1st yr student FG2)

All students had a well-developed understanding that once knowledge is attained learning does not cease, and that ongoing professional development will be a key factor in maintaining their evidence based practice and clinical teaching capacities.

Professionalism was identified by students as a factor that impacts on the co-creation of a culture for learning and it was recognised that the power of learning through observation of an excellent role
model is immense. The 1st year students commented that the 3rd year students displayed a great deal of professionalism during the peer education session. Factors that the 1st year students identified with professionalism and good role modelling were knowledge, confidence in skills and maintaining focus on the task at hand. Conversely, poor professional behaviours have the ability to impact not only the learning experience of the student, but also the women receiving midwifery care, and ultimately the workplace culture. Both 1st and 3rd year students emphasised that many midwives often allow their personal lives to affect their professional behaviours in the workplace. One student suggested that communication could go a long way in relieving the tensions felt when someone is ‘having a bad day’.

“That’s even just communication. Just like ‘I’m sorry if I’m in a bad mood today but I’ve got a lot on my plate’. Just one sentence can make the difference for a student”. (1st yr student FG2)

Being able to learn from the professional behaviours of others helps students to develop their own professional identity.

The ability of a clinical teacher to be adaptable and flexible in the way teaching is approached was seen as essential to a culture that values learning. In the intervention, the 3rd year students were unexpectedly tested in their ability to be flexible and modify their sessions to accommodate the more than expected learners, which was recognised and valued by the 1st year cohort.

“It was their first experience of teaching a skill, it could be quite daunting when you’ve got three or four people to teach rather than one-to-one, where you can build that rapport very quickly … So to include three or four people, as they did today is... They weren’t expecting that” (1st yr student FG2)

The 1st year students reported that this alteration was undertaken in a well-executed manner by the 3rd year students and their composure under pressure provided a valuable lesson in professionalism.

Regardless of the inherent workplace culture, clinical teaching is a required responsibility for registration as a midwife and students believed that, if given the appropriate skills and knowledge,
the culture can be changed from the bottom up. Students, who learn to teach are more likely to be passionate about teaching, and more engaged in the co-creation of a positive culture for learning. Following the peer education session one student reflected:

“It showed that it can be done. If it can be done here it can be done in a practical setting, in a clinical setting. So why isn’t it being done? We can change that once we get into the workforce. We can be better teaching midwives”. (1st yr student FG2)

Interestingly students could also determine that the culture for learning is impacted by their own behaviours, skills and attitudes. They felt that displaying initiative, leadership, critical thinking and reasoning skills, and being a self-directed learner are qualities that are viewed favourably and enhance respectful relationships for learning. Notwithstanding the importance of a culture for learning and effective clinical teaching, the second theme describes the students’ recognition of the reciprocity of teaching and learning.

**Reciprocal teaching and learning**

The concept of reciprocal teaching and learning is not a new one; the Roman philosopher Seneca 4BC-AD65 quoted “While we teach, we learn”. Participants understood how through teaching, comes learning; and that one cannot teach without learning. The 3rd year students understood the inter-relationship between teaching and learning prior to the peer education session, as one explained:

“... I think you learn a lot as well when you’re teaching somebody something. Often when you articulate something, you learn”. (3rd yr student FG1)

This was further highlighted following the peer education session when both 1st and 3rd year students were able to articulate the reciprocal connection between teaching and learning.

“By teaching them I found out some things I actually don’t know. I didn't realise when you teach others you have to understand yourself so clearly and how step by step I had to explain everything”. (3rd yr student FG3)
One student discussed the inter-relational association between teaching and learning, identifying that the two elements which are related to this in our competency standards are intrinsically connected.

“Well, teaching and learning come under the same bracket really. ... I feel like your professional development goes hand-in-hand with actually teaching somebody else”. (3rd yr student FG1)

The exposure of the graduate midwife to the clinical teaching role is sometimes limited, dependent upon the venue, based on a belief that the addition of the role of clinical teaching is beyond the capacity of a novice. Students suggested that while this may be the case for some graduate midwives, there are significant benefits to the consolidation of practice that evolves through clinical teaching and interactions with students.

“It does consolidate your knowledge when you teach someone else something”. (1st yr student FG2)

The 3rd year students recognised that they will soon be working as graduate midwives and having exposure to students and the additional responsibility of clinical teaching would assist them to successfully transition from student to health professional.

Participants discussed developing their educational capacities through the Continuity of Care Experiences with women. Continuity of Care Experiences are a formal practicum component of Australian midwifery education where students interact with both women and their maternity care provider, when students follow women through their pregnancy and childbirth journeys. A great deal of the learning and teaching that midwifery students are involved in, results from their engagement with pregnant women through the ‘Continuity of Care Experiences’. [10] Students value sharing newfound knowledge and skills with women and are able to make a positive contribution to the woman’s experience, while enhancing their own learning. It is through these experiences that 1st
year students became innately aware of the reciprocal nature of teaching and learning, regardless of the limited midwifery knowledge they had.

“We’re educating as well from the word go because we’re educating the women”. “You educate women to bath their babies, to change a nappy, to breast feed”. “So it needs to be something that you really feel confident with”. (1st yr students FG2)

Teaching women is seen as something that is helping to develop the student’s teaching skills and improve their confidence. Students suggested that their continuity women feel comfortable asking them questions, as their relationship is more equal than the hierarchical relationship they have with the health professionals, fostering a very reciprocal learning situation.

“But also the power balance is different as well, because we might be helping them but they’re actually also helping us, so it’s an equal - fairly equal relationship”. (1st yr student FG2)

While the Continuity of Care Experiences take a great deal of commitment and time, both cohorts of students comprehend the inherent value of these interactions. These mutually beneficial relationships help them to gain a clear understanding of many aspects of midwifery, as well as to develop their teaching skills. The students spoke fondly of the reciprocity of teaching and learning in this context.

Feedback is a means to direct and improve learning and the learner is deemed to be the one who can best judge the value of feedback, however, they may not always recognise the benefits it affords[34]. Following the theme of reciprocity in teaching and learning, after the peer education session, a 1st year student made the observation that feedback should be a two way interaction.

“For the 3rd years today, they gave us our feedback, but it would have been good for us to give our verbal feedback to them perhaps. Because I think if they feel that they’ve achieved something, that’s going to probably inspire them. I’m sure that you will feed-back what we’ve said and perhaps this is the whole point of the focus group, but I think if we’d been able to say - I guess we could say ‘thank you and it was really, really helpful’ and I think we all did, but I think that it's a two-way thing. We need to feed-back to our midwives as well,
how we felt and how they've helped us, and hopefully you get a two-way feedback thing and
that inspires people and that snowballs”. (1st yr student FG2)

The participant students demonstrated a good understanding of the complex nature of the feedback
process and were able to link feedback that is given and received well, to gaining improvements in
clinical care and safety. Through such two-way interactions, where the learner becomes the teacher
and the teacher becomes the learner, the power imbalance may be somewhat equalised resulting in
mutual benefit from the interaction.

**Developing clinical teaching capacities**

The final theme identified, helped to ascertain which parts of the curriculum currently support the
students to develop the qualities recognised as being inherent in an effective clinical teacher and
how they might be further enhanced.

It became evident throughout the focus groups that while very little of the formal curriculum within
the Bachelor of Midwifery is dedicated to explicitly developing students’ skills in clinical teaching,
they do learn many valuable teaching capacities throughout the degree. An example of this is how
the interactions with women through the Continuity of Care Experiences play a significant role in
students’ learning the skills required to teach, although this is not an explicit learning outcome of
these activities.

Reflection and debrief were identified by students from both year levels as being a crucial aspect
that helped them to develop deeper understanding and make sense of clinical situations for both
learning and teaching.

“I know Sharee (pseudonym), with our clinical topics, would always ask, ‘Is there anything
you want to talk about from the last week or so’? That was really good... You could just hear
how other people were doing things. So we were kind of teaching each other without
meaning to”. (3rd yr FG1)
The 3rd year students were immensely conscious of the pivotal role that reflective practice plays in their clinical learning, but also in terms of helping them to make sense of the clinical teaching they experience. Increasing guided reflection was thought to be a beneficial approach to enhance clinical teaching capacities.

“I think it would be helpful to reflect formally on the way we’ve been taught... we do tend to blame ourselves for our learning experiences. Whereas I think it would be a helpful exercise to reflect on the way we’ve been taught, what we found beneficial and what we didn't in a formal setting. We tend to talk about it, but it usually ends up being more bitchy than constructive”. (3rd yr student FG3)

The 3rd year students suggested that undertaking structured reflection on their own experiences of learning through clinicians could further assist them to develop their own understanding of the ways that clinical teaching can enhance (or inhibit) learning. Undertaking such formative activities was viewed as a step towards contributing to a positive culture for learning, through the reciprocity of teaching and learning.

The ability to prompt critical analysis in a way that fosters learning was seen to be of significance in the context of clinical teaching, and group debriefing was identified as a valuable source of reciprocal learning. Students’ capacity for critical thinking was also developed through regular meetings with clinical facilitators, who examine the students’ clinical experiences, assess knowledge and pose questions to promote reflection in order to identify specific gaps in knowledge. The facilitators provide students with a valuable connection between theory and practice, and seamlessly cross the interface between clinical venues and the university. The 3rd year students saw this as a valuable tool for their future responsibilities in clinical teaching.

Students across both year levels were able to identify how group work assisted them with developing the skills and behaviours necessary for clinical teaching. While navigating the dynamics of a group may be difficult, the collaborative effort required to work in groups was seen as an excellent
vehicle to develop attributes as leadership and negotiation, which they saw as particularly beneficial to clinical teaching.

Memorable learning activities were recognised as valuable mechanisms to motivate learning and develop clinical teaching capacities. Class presentations are not always easy for students, however the 3rd year students agreed that they were an effective tool to improve confidence in public speaking abilities, a trait which was viewed as important for effective clinical teaching. The 3rd year students discussed a class presentation they gave during their second year, which they believed helped them significantly to develop teaching skills. They were encouraged to be creative with the way they delivered the information and their presentations were innovative, using various methods such as singing, dancing, games, poetry and posters to convey information.

“So it wasn't just a normal tutorial or lecture ... every single person's presentation was different. We had all of these stimulating ideas from everybody...”. (3rd yr student FG1)

The students enjoyed the creative aspect of the activity and were able to recall each presentation. They were clearly able to link this activity with the innovation and creativity that enriches clinical teaching, understanding that when information is conveyed in an engaging manner, it is memorable, and this enhances retention and learning.

One student articulated that she perceived that she had a natural ability to teach, but realised that this may not be the case for everyone.

“Because, like communication, sometimes you think it's not a skill you think just everyone can do. But I suppose teaching is a bit the same. Although you might be able to do the skill, to then teach someone else and not to take over and want to do it for them is probably a skill that as a midwife some people might need to be taught.” (1st yr student FG2)

There was a general consensus across all of the focus groups that formalised education in clinical teaching would improve student learning outcomes and also impact positively on the confidence
that clinicians have in their ability to provide quality learning opportunities for students and peers, ultimately creating a positive learning culture.

“I would prefer knowing that everyone coming out of the course could be a teacher because we’re always talking about people who have done something to us that we haven't liked. Then we have an opportunity to not do those things when we go out. I would hope that most people would. I guess maybe - I've had a few people who haven't given any care for teaching me anything. I would hope that most people wouldn't be like that who are coming out now” (3rd yr student FG1)

The peer teaching session was perceived as highly beneficial for both the 1st and 3rd year students, as it provided a safe learning environment for the third year students to ‘practice’ their teaching, and both groups valued the peer to peer relationship and understanding. The 3rd year students discussed ways in which such reciprocal teaching and learning could be enhanced, and suggested tutoring other students would be another way to help them to prepare and revise for exams.

Following the peer education session 3rd year students developed a new understanding for the preparation required for effective clinical teaching. They noted that increased workloads and time constraints were significant issues in the workplace, identifying that there are many other tasks that may take priority over teaching, impacting on a clinician’s ability to adequately prepare.

“...What has stuck out to me as important is what I would need other people to know? If I tell them this, this and this, is there going to be a big gap in their information? Are they going to be a bit lost still? You don't want to bombard them. It was a really good experience ... trying to think how much to teach somebody”. (3rd yr student FG1)

The students understood that ensuring an appropriate level of information is provided to a learner is a key consideration in the provision of effective teaching.

Possibly the most relevant of the findings from this study are those which highlight that a culture that promotes quality learning and teaching is one that will, in effect, promote sustainability of our profession while ensuring quality maternity care. The following statement sums up the immense responsibility that is inherent in clinical teaching.
“I was just going to say I've got a lovely story of a midwife....who said to the woman in our care ‘I hope you’re okay that I’m spending so much time teaching Zara (pseudonym) because I’m close to retirement and if I don’t train - if I don’t teach the next up and coming generation’... She said ‘I don't want my profession to die’. She said ‘It can't be the end of the profession and if I don't teach, they don't learn and it all dies out’”. (1st yr FG1)

It is interactions such as this, in a culture that values learning, that will inspire our students to contribute in a positive way to the ongoing improvement of the profession resulting in maternity care of the highest quality.

**DISCUSSION**

This project set out to investigate the preparedness of midwifery students for their future clinical teaching role, and to determine whether a structured clinical teaching intervention assisted them to develop their clinical teaching capacities. Through a series of focus groups with both 1st and 3rd year midwifery students, we were able to elicit a holistic picture of their preparedness to assume the clinical teaching role. The student participants described an understanding of their role in the co-creation of a culture for learning in the workplace and awareness of the interrelatedness of workplace culture, their engagement in the learning opportunities and clinical teaching and learning outcomes. The students recognised the reciprocity of teaching and learning; that through teaching you learn, and through learning you teach. This reciprocal teaching and learning was evident throughout many aspects of their midwifery education both in the classroom and in the workplace.

Whilst for these students there was limited explicit clinical teaching preparatory activities, the participant students recognised that the curriculum activities including group work, learning reflective practice, and engaging with women on a regular basis through the continuity of care experience collectively provided affordances that developed their clinical teaching capacities. The findings of this study highlight a number of issues that warrant further discussion, including the hidden curriculum, relational interdependence and supportive cultures for learning.
Using a design based research process, we implemented activities to provide 3rd year students practice models for teaching skills and giving feedback, both of which are considered core aspects of effective clinical teaching.[4] The students were then able to ‘practice’ these teaching skills on a voluntary cohort of first-year students in a peer to peer education activity. Peer-to-peer learning is a recognised pedagogical approach[23] which is known to enhance students’ teaching capacities.[16, 35, 36]

While all participant students identified that the peer to peer teaching activity was beneficial, upon reflection, the 3rd year students were able to appreciate that they had indeed already learned a great deal of teaching capacities as a ‘side effect’ of their midwifery education. Educationally this is known as coming from a ‘hidden curriculum’,[37] where lessons are learned through means not initially intended. The incidental learning that occurs through the hidden curriculum is a powerful reminder that students can gain knowledge through many different means, which needs to be considered during curriculum development and prior to development of a specific course or activity to teach clinical teaching skills. It is educationally best practice to make explicit all the intended learning outcomes for an educational program.[37] As capacities of clinical teaching are embedded in the midwifery competencies, such learning outcomes should be transparent in the intended curriculum and not left to chance in a hidden curriculum.

The participant students made explicit connections of the relational interdependence of: workplace-based experiences and their learning; workplace culture and clinical teaching; and the reciprocity of teaching and learning. Acknowledgment of the relational interdependence between individual and social agencies when learning through work has been made.[38] Billet and Sweet have drawn on the theoretical basis of relational interdependence, describing the participatory practices of affordance and engagement and how collectively they both influence and are influenced by one another.[39] The students in this study spoke of the value and importance of a positive culture for learning, recognising that they both are influenced by the workplace culture, but also are influential to that same culture. It is through their actions and interactions as students presently, and the ways in which they may elect to engage in their clinical teaching role in the future, that they co-create a
culture that either supports or inhibits learning. Henderson and colleagues developed a framework incorporating the concepts of leadership, management and partnership that interact to create and sustain effective learning environments.\[3\] Whilst discussed in the context of nursing, Henderson and colleagues eloquently demonstrate the relational interdependence between individuals and the social agencies of the workplace:

“Clinical settings where staff routinely partner with each other and students to demonstrate and role-model, encourage conversations about nursing practice, and provide constructive feedback to their peers contribute to the professional development and clinical learning of the nursing team, as well as of students who become part of the nursing team at different periods during their clinical placements” \[3, p. 201\]

It was concerning to find the students’ perception that our current maternity services, in general, do not have a supportive culture for learning. The participant cohort in this study are exposed to a variety of maternity settings including public and private, community, secondary and tertiary hospitals, and midwifery group practices. Whilst these 1\textsuperscript{st} and 3\textsuperscript{rd} year students described encounters in the workplace that inhibited their learning, they are not alone, with similar findings reported elsewhere.\[11, 19\] Australian midwifery competency standards require that the midwife must be able to contribute to the professional development of themselves and others.\[12\] This includes all registered midwives, from graduation until retirement. It is not and should not be the solely the domain of those in education positions. Providing explicit education on clinical teaching skill development and enhancing two-way feedback between learners and teachers are some approaches that may overcome the current situation.\[3, 40\] There is a growing number of clinical education postgraduate courses in Australia,\[41\] but it cannot be ignored that clinical teaching skills are a requirement for our undergraduate midwifery programs.\[16\]

LIMITATIONS

The sample group of students was recruited from a single institution in Australia. The study would have been strengthened had it taken a more broad sampling approach across institutions. However
the qualitative findings offer important insights into ways in which midwifery students develop their clinical teaching capacities, in the absence of explicit curricular activities. There were some limitations in the focus group discussion with the first-year students given there were 15 people in attendance. Ideally a focus group would have 6 to 8 participants [30] to enable effective group discussion and recording of data. However in the context in which this study occurred, all of the first-year students were keen to participate on the day. We overcame the challenge by using multiple audio recorders situated across a large table, and using effective facilitation strategies by the focus group leader.

CONCLUSION

So this brings us back to our questions and whether the midwifery students are adequately prepared to undertake the role as clinical teacher upon graduation. This study has demonstrated that the students were acutely aware of factors that positively and negatively influence clinical teaching and learning, and were already taking steps to enhance the learning experience of themselves and their peers. Whilst acknowledging that the intervention gave them some new strategies for their teaching practice, it was evident they had developed a critical perspective of workplace-based learning and had clear anticipations about how they would practice upon graduation. Developing clinical teaching capacities are a requirement of meeting competency statement 13, however are rarely affording transparency in the intended curriculum. As educators, it is important that we revisit the intended, delivered and hidden curricula [37] and make explicit the intended learning outcomes to meet the competencies for practice. By better equipping our graduates for the clinical teaching role, through relational interdependence we can assist the improvement of a culture for learning and ultimately enhance the profession of midwifery.
Reference List


Diagram 1: Thematic map

Co-creating a culture for learning
- Learning and supporting others to learn
  - Workplace culture
  - Effective clinical teachers

Reciprocal learning and teaching
- Learning with women
- Consolidation of practice
  - Feedback

Developing clinical teaching capacities
- Reflection
- Activities
- Faculty
Figure 1

**Peyton’s four-step approach to teaching skills:**

- Demonstration: Trainer demonstrates at normal speed, without commentary.
- Deconstruction: Trainer demonstrates while describing steps.
- Comprehension: Trainer demonstrates while learner describes steps.
- Performance: Learner demonstrates while learner describes steps.


Figure 2

**Pendleton’s four step model for giving feedback:**

Step 1: the learner states what was good about his or her performance

Step 2: the teacher states areas of agreement and elaborates on good performance

Step 3: the learner states what was poor or could have been improved

Step 4: the teacher states what he or she thinks could have been improved.