Nurse Education in Practice 34 (2019) 56–62

Contents lists available at ScienceDirect

Nurse Education in Practice

journal homepage: www.elsevier.com/locate/nepr

Original research

Experiential learning in nursing and allied health education: Do we need a national framework to guide ethical practice?

Sandra Grace[a,*], Lynette Stockhausen[b], Narelle Patton[c], Ev Innes[b]

[a] School of Health and Human Sciences, PO Box 157, Lismore, NSW, 2480, Australia
[b] School of Health and Human Sciences, Southern Cross University, Locked Mail Bag 4, Coolangatta, Qld, 4225, Australia
[c] The Education for Practice Institute, Charles Sturt University, Locked Bag 450, Silverwater, NSW, 2128, Australia

ARTICLE INFO

Keywords:
Nursing
Allied health
Experiential learning
Peer physical examination

ABSTRACT

Experiential learning is widely used in health courses to develop students' clinical skills. Students act as models for demonstrations of practical techniques and work in small groups to practise clinical skills. These classes present a number of ethical challenges including removing clothing, physical touch and disclosing personal information. The aim of this study was to ascertain the views of nursing and allied health regulators and professional associations regarding the need for a national framework to facilitate ethical experiential learning in health courses. Ten semi-structured interviews were conducted either face-to-face or by phone and their audio-recordings transcribed verbatim for thematic analysis. Students' willingness to participate as models was taken-for-granted by educators. Risks to students' wellbeing were considered minor and outweighed by the benefits of experiential learning. The increasing diversity of students enrolled in health courses has increased awareness of students' rights, including choosing not to participate in some learning activities. Ongoing cycles of curriculum review provided an opportunity to respond to changing social values, including increased collective awareness and respect for, students' rights, cultural diversity, professional standards, and risk/benefit analysis of all student activities. There is a need for a national framework to guide ethical experiential learning in practical classes.

1. Introduction

Experiential learning has been an important component of health courses for decades (Braunack-Mayer, 2001; Hendry, 2013; Hilton and Barrett, 2009; Wearn et al., 2008) and includes practical and laboratory classes where students learn clinical skills, and simulated and actual clinical placements. This paper focuses on the ethical conduct of practical classes where students develop their clinical skills. In these classes students are called upon to act as models in class demonstrations of practical techniques, and in peer-assisted learning where students work in pairs or small groups to practise skills such as interview techniques, taking vital signs, performing functional movement assessments, and practising treatment techniques. Participating in experiential learning can involve students removing part of their clothing, physical touch or disclosure of personal information. Accompanying these experiential learning activities are inherent ethical challenges that have been exacerbated in recent years by the keenness of students to video record segments of practical sessions and demonstrations, sometimes without consent, for review at a later date. Additionally, demonstrating and practising treatment techniques on student models, who do not require treatment, exposes students to risk of injury. Experiential learning could expose teachers and institutions to possible litigation for failing to ensure their students' welfare.

Social learning theories offer a useful framework for understanding health education practices. In practical classes, students learn from class tutors and student peers. Social learning theories such as those developed by Vygotsky (1978) and Rogoff (1990) explored the process of skill acquisition when learning new skills with guidance from a more capable 'other'. Vygotsky held that guided action was a precursor to independent action: what individuals could achieve with assistance today they would be able to do independently tomorrow. Rogoff described guided participation as both explicit efforts to guide learners in development and tacit communication and arrangements (contextual guides) that are embedded in the practical and routine activities of daily life. The combination of explicit guidance (e.g. briefing students before they practise specific techniques) and tacit prompts (e.g. role modelling) provide a bridge from a learner's current understanding and skill development to new and possibly improved ones. Rogoff's

* Corresponding author.
E-mail addresses: sandra.grace@scu.edu.au (S. Grace), lynette.stockhausen@scu.edu.au (L. Stockhausen), n.patton@csu.edu.au (N. Patton), Ev.innes@scu.edu.au (E. Innes).

https://doi.org/10.1016/j.nepr.2018.11.003
Received 5 April 2017; Received in revised form 19 May 2018; Accepted 3 November 2018

description of learning as a social process highlights the centrality of tutors and student peers to student learning in practical classes. Interacting with peers allows students to learn in practice contexts through validating and sharing information, shared decision-making and brainstorming ideas (Parboosingh, 2002).

Learning experiences need to be as close to real life as possible so that students see their relevance, become curious, and take charge of their own learning (Boud and Miller, 1997). Experiential learning has particular relevance for students enrolled in health courses. Healthcare practices are complex, dynamic and experiential phenomena that are embodied in, and transformed through, individual performances, and grounded in the ethical aim of doing good for others (Patton and Higgs, 2014). They are informed by the specific knowledge base of the profession that comes to life through practice performances (Kemmis, 2012). Ryle (2009) highlighted an interdependent relationship between practice performance or bodily actions and knowledge development. This understanding of an embodied dimension of practice performances resonates strongly with healthcare practices with many assessment and treatment interventions involving physical actions. This interdependence suggests that meaningful learning in healthcare practitioner education can be achieved through students actively practising techniques, often on each other.

Practical classes are opportunities for modelling ethical behaviour in performing clinical skills and establishing an ethical culture in practical classes. Cultivating the kind of behaviours and attitudes required for ethical healthcare practice needs to begin from students' earliest experiences in practical classes. According to Rouse (2007), embodied action, which includes bodily dispositions or habits, can be sustained over time because it is inculcated in the continuing dispositions or habits of individual agents. Participation in peer learning also supports the development of students as effective team players who are capable of forming meaningful professional relationships and collaborative problem solving (Baldry Currens and Coyle, 2013).

A number of ethical challenges can arise when students learn clinical skills in practical classes. Students' attitudes to experiential learning are well documented in the literature (Barnette et al., 2000; Braunack-Mayer, 2001; Chang and Power, 2000; Outram and Nair, 2008; Wearn and Bhoopatkar, 2006; Wearn and Vnuk, 2005). Most students from western cultures accept that peer physical examination of non-intimate body regions forms a routine part of their learning. However, some students feel pressured to participate or to join particular groups despite feeling embarrassed or uncomfortable (Delany and Frawley, 2012; Hurley et al., 2002; Marley, 2009; Roberts, 2008; University of Queensland, 2015). Students are also concerned that acting as a model or practising on fellow students can affect their relationships (Hilton and Barrett, 2009; Rees et al., 2005). Gender, religion, age, culture, ethnicity and body image have all been found to influence students' willingness to participate in peer examination in clinical skills classes (Barnette et al., 2000; Chang and Power, 2000; Rees, 2007; Rees et al., 2009; Reid et al., 2012). Students may also feel frightened of being harmed during an examination by peers or that they may cause harm to a fellow student (Rees et al., 2005).

There has been a growing concern about the ethical implementation of experiential learning in medical education since the 1990s (Braunack-Mayer, 2001), culminating in calls for a national policy (Koehler and McMenamin, 2014; Nulty, 2012). These concerns are also shared by nursing (Hilton and Barrett, 2009), physiotherapy (Delany and Frawley, 2012) and health science disciplines (Hendry, 2013). The University of Queensland's peer examination policy (Koehler and Schafer, 2014) appears to be one of the few policies in Australian health courses explicitly addressing these concerns.

Fourteen healthcare professions are registered in Australia by the Australian Health Practitioner Regulation Agency (Australian Health Practitioner Regulation Agency, 2013). Registration boards appoint accreditation agencies to assess programs of study. Non-registered professions are governed by the National Code of Conduct for health care workers, which sets minimum standards of conduct and practice for all unregistered health care workers (COAG Health Council, 2015). Governance of professions and professional training also relies on professional associations who act as key agencies for disseminating changes in government policies, for continuing professional education and political lobbying with government agencies and health insurance companies. The use of experiential learning in health programs is widespread and yet accrediting and regulatory agencies to date have had little interest in this aspect of health curricula. This aim of this study was to ascertain the views of representatives from nursing and allied health professional associations, accrediting bodies and registration boards regarding a national framework for the ethical conduct of experiential learning in health courses.

2. Method

2.1. Research design

This research is located in the field of social constructivism (Crotty, 1998; Lincoln et al., 2011; Martens et al., 2010). Subjective meaning of experiences is sought and created by individuals. These meanings are formed though lifetimes of experiences, interactions with others and the historical and cultural influences on people's lives (Creswell, 2013). The researcher's aim is to interpret others' experience of the world. Our extensive literature review and the research team's personal experiences as teachers of clinical skills confirmed the absence of policies and procedures in this area: only one Australian university policy was located (University of Queensland, 2015). The sample for the study was chosen to ascertain the views of regulators, accrediting bodies and professional associations on the ethical conduct of experiential learning and whether such matters were in the purview of the agencies they represented. The professions included in the study were sufficiently diverse to offer a wide range of perspectives: two non-allied health registered profession (nursing and midwifery), four allied health registered professions (chiropractic, occupational therapy, osteopathy, physiotherapy), and one non-allied health non-registered profession (paramedicine).

2.2. Data collection

The research team contacted 11 professional associations, accreditation bodies and registration boards to inform them of the project and invite representatives to participate in a semi-structured interview of up to 1 h's duration. Ten invitations were accepted. Participants were health professionals who were likely to be well aware of the ethical issues that can arise in practical classes when students act as models for their peers. They were also in senior professional positions with the opportunity to contribute to policy development. The semi-structured interviews were developed from the literature and sought information about participants' personal experiences with experiential learning during their own professional education and their views on the need for a national framework to guide ethical conduct in practical classes. They were also asked about the role of their respective regulating or professional body in ensuring ethical conduct of teaching practices and their advice on how to maximise uptake of any such framework (see Appendix 1). The participants were required to sign an Interview Participant Consent Form before undertaking the interview. All four researchers conducted the interviews: two were face-to-face and the remaining eight were conducted by telephone. Interviews continued until the information emerging from interviews became redundant (i.e. theoretical saturation was achieved). This occurred within the ten interviews from the identified professional groups and no further interviews were sought.

2.3. Data analysis

The adoption of a qualitative content approach to data analysis enabled the researchers to probe participants' responses. As a research method, qualitative content analysis allows for subjective interpretation of text data through a structured process to reveal themes and categories (Hsieh and Shannon, 2005). This structured process for subjective interpretation also ensures study credibility. To initiate the process audio-recordings of the semi-structured interviews were transcribed verbatim. Then, through a progression of reading and re-reading the data to identify concepts or codes (first order analysis), an iterative process of interpretation and analysis was commenced independently by two of the researchers (SG, LS). Key words and significant statements of meaning were then formulated and organised into clusters. The two researchers then applied their individual inductive and later deductive analysis to identify patterns and allow themes in the data to emerge (higher order analysis). Once each researcher had completed their analysis, they compared findings to achieve consensus. The research team then met to discuss this preliminary analysis and continue deliberation until major overarching themes were agreed.

2.4. Ethical considerations

The research had ethics approval from the researchers' institute (Approval number: ECN 15–310).

3. Findings

Interviews were conducted with participants from seven disciplines (chiropractic, nursing and midwifery, occupational therapy, osteopathy, paramedicine and physiotherapy) as indicated in Table 1.

Three key themes emerged from the data analysis: (1) Taken-for-granted pedagogical assumptions; (3) Changing social, cultural and professional values; and (3) Ethical conduct of experiential learning.

3.1. Taken-for-granted pedagogical assumptions

Experiential learning was widespread in health professional training. The authenticity of experiential learning where students had the opportunity to act both as practitioner and patient was viewed as an integral part of their education:

> When most staff begin thinking about teaching physiotherapy, they think about it being experiential, as authentic-as-they-can-be experiences for students … actually engaging in the experience of what therapy might look like. (Participant 9)

Using students as models for their peers and for class demonstrations created fertile ground for discussions about ethical practice, including such topics as informed consent, privacy, risk-benefit analysis and questions of practice authenticity. One participant talked about the role of experiential learning in ensuring that students understood informed consent 'as an ongoing dialogue and not just a written document' (Participant 7). Experiential learning also provided teachers and tutors an opportunity 'to model ethical, professional and culturally sensitive approaches' (Participant 9). Whether they were aware of it or not, teachers and tutors not only demonstrated how to perform clinical assessments, treatment techniques and other clinical skills but also the way a member of the profession interacted with patients and others. Their experiences, actions, demeanours and communication styles presented a model of practice that could be compared to students' own ethical values and incorporated into students' repertoire for future ethical practice. Students could practise how to speak to patients in a professional way in preparation for future practice.

> … if a patient does have a reaction to treatment during the treatment time, how do you manage that? What are the processes you go through? How do you talk to them? And if you have had experience of that in a student clinic, or in a student setting, then you're more likely to deal with that in a professional way. (Participant 7)

This strong support for experiential learning as fundamental to students' learning meant that it was assumed that all students would be willing to participate as models in class. Great importance was placed on students being able to appreciate the healthcare experience from the patient's perspective, to feel what it was like to be a patient, and to cultivate empathy and respect for patients.

> It's almost subconscious, I suppose, because you always see [students acting as models]. That's part of your experiential learning, and that's always there as a requirement. I do expect to see it. (Participant 5)

> Students gain … a greater insight and appreciation of what is happening and what needs to happen so that as a patient you experience that. It's important to appreciate what a patient feels. (Participant 2)

Typical practical classes comprised a demonstration, often using a student as a model, followed by practical sessions when students worked in pairs or small groups to practise the procedures and techniques that had been demonstrated. Students would take turns acting as practitioner or patient, which often required some degree of disrobing. Participants used this learning strategy largely because it had been integral to their own education. Participants did not appear to question its use or relate it to any educational theory, but rather conducted classes in the way that they had always been conducted in their discipline. They took it for granted that experiential learning was a sound pedagogical strategy, despite potential student discomfort.

> I think it was probably a little bit of a shock that first year and probably a situation that a lot of females didn't really feel comfortable with, but it was just an expectation that that's what we had to do. So you just have to do it. (Participant 6)

It was also assumed that all students knew what to expect, were willing to act as models, were happy to physically touch and be touched by other students (often all other students in the group), and would be respectful of others' bodies. However, participants acknowledged that students often found those experiences 'challenging' or 'confronting', particularly with regard to exposing their bodies in class.

> Participation in activities often means disrobing. Students are more emotionally conscious about that than we were in our day. But the idea of having to disrobe in front of others in the class - I think that's probably emotionally challenging. (Participant 3)

Participants recalled some confronting experiential learning experiences from when they were students:

> Your peers look at you and judge your physicality. (Participant 10)

> I remember being a model … and having to do that Hallpike manoeuvre … multiple times, over and over again and my middle ear

Table 1
Disciplines of participants.

Discipline	Professional association	Professional accreditation body	Professional registration board
Chiropractic	x		x
Nursing and midwifery			x x
Occupational therapy		x	
Osteopathy	x		x
Paramedicine		x	
Physiotherapy		x x	

has never been the same since. (Participant 3)

The widespread use of experiential learning strategies was underpinned by taken-for-granted assumptions regarding the pedagogical value of and student willingness to participate in such strategies and largely ignored instances of student discomfort. Experiential learning was ingrained in the culture of teaching for health professions, evidenced through the repetition of teaching practices that teachers had experienced as students and assumed to be pedagogically valuable.

3.2. Changing social, cultural and professional values

Curriculum, learning and teaching practices were described as constantly evolving. Participants frequently referred to ongoing accreditation reviews and curriculum renewal. The review cycle enabled learning and teaching practices to respond to changing social values, including increased collective awareness of, and respect for, students' rights, cultural diversity, professional standards, and risk/benefit analysis of all student activities.

I've kept close contact with the people at […] uni and I know that they keep evolving how they handle the situation [students' rights in experiential learning]. (Participant 1)

Participants also identified clinical skills that were no longer considered appropriate and consequently had been removed from the curriculum, of managing classes where students were from diverse cultural backgrounds, and of changing course accreditation requirements.

I can remember in the late '70s and early '80s, when I did extensive peer training, that we used to do cannulation on each other. Now, the activities that involve touching other people are usually the non-invasive procedures. (Participant 8)

I don't think some of the procedures are practised anymore. I'm pretty sure they don't go through the prostate exam. (Participant 2)

Changing social and cultural norms meant that teachers and tutors were sometimes faced with challenges to their assumption that all students would willingly participate as models (e.g. when students were from non-Western cultural backgrounds). Resolution of these situations varied along a broad continuum, including provision of screens or clarifying the importance of student participation, as illustrated in the following quotations:

It's a challenge when students haven't wanted to disrobe for religious or cultural reasons … Staff are still able to have students participate in experiential learning by setting up screens and various other ways that students can feel that they still participate and gain that learning experience. (Participant 3)

Others were less willing to make adjustments for individual students:

I call it critical incidents, one of them involving a Muslim student, and she was reluctant to have the men in the class practise on her. She just wanted to practise on other girls. So we just had a chat at the start of the class and I made it clear … no one was going to be forced to do anything that they didn't want to do. But by the same token, practising involves a partnership, and that the person you're with needs to be practised on, and needs to practise on you and that could not be limited to just females. Every student had to practise on males as well as females because that's what the license to practise entails. (Participant 1)

However, it was clear that changes in social values and the cultural diversity of the student population was challenging the way that experiential learning was traditionally viewed and enacted.

Cultural, religious, even trauma background - different things like that probably make some people more susceptible to being at risk to … being upset or distressed by [experiential learning] (Participant 6)

The thing that came to our attention was the increasingly multicultural nature of our classes and that it was not acceptable for some cultures to participate in some of those exercises [palpating abdomens] (Participant 5)

Another change was brought about by the availability of mobile phones in practical skills classes. Some participants spoke of an implicit trust among student peers. However, it appears that students sometimes betrayed that trust and took unauthorised photographs and videos during practical classes and sometimes posted them on social media. Participants knew they had to be 'more aware of phone and media technology and photographs [in class]' (Participant 6). Some teachers had increased their vigilance in practical classes and found the need to discuss the use of mobile phones in the context of ethical behaviour.

Curriculum review enabled teaching practice to change to reflect current professional practices. Teachers' and tutors' responses to ethical challenges to their assumptions that all students would be willing participants in practical classes varied along a broad continuum, largely informed by their individual and professional values. However, despite this variation all responses ultimately resulted in students' participation in experiential learning, albeit in modified ways.

3.3. Ethical conduct of experiential learning

Participants were all members of registration boards, accreditation agencies or professional associations. They were interviewed because of their broad knowledge of their respective professional curricula and standards. According to participants, registration boards were responsible for setting high level rules and guidelines for entering and remaining in the profession (e.g. practitioners' codes of conduct and complaints mechanisms). Accreditation councils were seen as responsible for high-level professional standards for program approvals and program curricula. The role of the professional associations was, in part, dependent on whether the discipline was registered. For those disciplines that were not registered, the professional associations took on similar responsibilities as the registration boards. While these professional bodies were not primarily concerned with actual delivery of individual classes and student activities within them, they reportedly provided high-level oversight of curricula including teaching and learning activities. Participants assigned responsibility to ensure ethical experiential learning to individual universities.

I don't think the accrediting body has any role [in ensuring ethical experiential learning]. That is seen as the education providers' responsibility. (Participant 4)

Despite this, participants were unaware of any university or teaching institution who had developed policies or training for teachers and tutors that specifically addressed the ethical issues associated with experiential learning. In the absence of a university or faculty policy teachers and tutors often called on their peers for advice:

… from time to time issues arise about cultural sensitivity or behavioural issues … there are all sorts of occasions like that where staff get together and talk about how these situations ought to be managed. Even things like what should students be wearing in clinical simulation classes, what should they be wearing in the clinic, even when they're treating each other, and how should they behave under those circumstances. (Participant 1)

In response to questions about the need for a national framework to guide ethical experiential learning in health courses, nine out of ten participants indicated that some form of guideline or framework would be beneficial for all concerned, including academics, students, professions and future patients. A framework for ethical experiential learning

could be referred to in accreditation guidelines and/or promoted through webpages (e.g. as a published report uploaded on their webpages). Such a framework could provide broad principles that could be applied to all health disciplines. Typical comments included:

> Some kind of guideline would be welcomed by the academic community to guide all teaching practices. (Participant 9)

> For the framework to be considered to have application it could be part of the accreditation information pack to the higher education provider saying that this is considered best practice or an acceptable state of practice for demonstration, examination or simulation activities. (Participant 8)

While registration boards and accreditation councils provide high level practice rules and guidelines, individual educational providers take responsibility for the implementation of ethical experiential learning sessions. In the absence of university policies and professional development regarding the delivery of ethical experiential learning sessions, development of a framework or guidelines would be of benefit for all concerned.

4. Discussion

This research confirmed the widespread use of experiential learning in the disciplines represented by the research participants, and that experiential learning remains a primary pedagogical strategy in these health courses, as reported in the literature (Braunack-Mayer, 2001; Hendry, 2013; Hilton and Barrett, 2009; Wearn et al., 2008). The social process of learning from and with tutors and student peers in practical classes was strongly endorsed as enabling students to learn in practice contexts through their shared experiences and communication (Parboosingh, 2002). Practical classes were seen as opportunities for cultivating the kind of behaviours and attitudes required for ethical clinical practice. Students learn to adopt their professions' cultures and behaviours from their teachers, tutors and senior students, including the ways in which experiential learning is implemented in practical classes. According to Rouse (2007) developing ethical clinical practice begins from students' first practical classes and their ethical dispositions and habits are inculcated by repetition over time.

4.1. Taken-for-granted pedagogical assumptions

Also highlighted in this research was an assumption that all students were willing to act as models, disrobe in class and disclose personal information, as the participants had been expected to do during their' own pre-professional education. Although participants could recall their own experiences as students in health courses - some of them quite disconcerting (*Your peers look at you and judge your physicality (Participant 10))* - they were mostly unaware of the concerns raised in the literature about coercion, equity and respect for cultural, gender, and age diversity (Delany and Frawley, 2012; Rees, 2007; Rees et al., 2009).

4.2. Changing students' attitudes and expectations

This research also highlights that the taken-for-granted pedagogical practices of experiential learning are being challenged by changing ethical and social expectations, student attitudes and behaviours, and the impact of diverse cultural values and beliefs. According to participants, both teachers and students were being called on to accommodate individual students' willingness to participate in experiential learning. Participant 3, for example, described setting up screens to protect students' modesty, while Participant 1 described how a student only elected to fully participate in class after the necessity of experiential learning to her success in the course had been explained to her. Solutions to such challenges were being devised in the absence of evidence-based policy or guidelines from their universities.

Despite ongoing reviews, it appears that nursing and allied health curricula have not fully kept pace with changing students' attitudes to, and expectations of, ethical experiential learning. For some educators, even their own harrowing experiences (e.g. Participant 3 reported ongoing problems that resulted from being a model for a class demonstration) did not modify the way that experiential learning classes were conducted, or how the learning environments were set up for students in practical classes. There was evidence of curriculum change in matters of invasive procedures like cannulation, and internal coccyx or prostate examinations that were no longer being taught or practised. However, such changes may be associated more with changes in scopes of practice than with concern for student welfare. Ensuring that all students are aware of requirements to complete the practical components of their courses before they enrol (Rees, 2007; Wearn and Vnuk, 2005) and ensuring that all students give their written informed consent before participating in experiential learning are strongly recommended in the literature (Braunack-Mayer, 2001; Outram and Nair, 2008).

4.3. Ethical conduct of experiential learning

The aim of this study was to ascertain participants' views on the need for a national framework that would ensure the ethical conduct of experiential learning in health courses. It is timely to consider this given that demand for experiential learning is likely to increase as it addresses the diminishing opportunities for clinical placements where students can learn 'at the bedside'. However, increasing use of experiential learning also increases risk to the wellbeing of students (Rees, 2007; Rees et al., 2009), and therefore the risk of litigation to universities should they fail in their duty of care to students. Even so, the level of risk involved in experiential learning was considered very low by participants. While they identified areas of risk such as students feeling uncomfortable, peer pressure for students to participate, and even coercion ('There's a fair amount of coercion for students to participate.' Participant 3*),* they felt that the advantages of this approach to student learning outweighed this risk.

Although participants thought that the responsibility for ensuring the ethical conduct of experiential learning lay with individual teaching institutions, it was clear that in a number of cases this responsibility had not translated into policies that specifically dealt with the ethical issues associated with experiential learning and changing students' attitudes and expectations. Consequently, teachers and tutors could be left to manage these issues in an ad hoc fashion and were often reduced to doing so after the event through discussions with peers who could provide suggestions based on their experiences of similar situations.

The widespread use of experiential learning in health courses and the generic nature of the ethical issues that can arise call for an interprofessional approach to developing an evidence-based national framework to support health educators to develop curricula for ethical practice that align with professional codes of conduct. Although a number of studies have reported results of surveys of health students, particularly medical students (Chen et al., 2011; Reid et al., 2012; Tolsgaard et al., 2014), the views of students from other health professions and from teachers and tutors in higher education institutions need to be more thoroughly canvassed. One survey of nursing and midwifery educators in the UK (Hilton and Barrett, 2009) was located in a narrative review of 35 papers on experiential learning (Grace et al., 2017). The authors (Hilton and Barrett, 2009) highlighted the desire of many higher education institutions for clear guidelines on safe, effective and ethical experiential learning. The authors suggested further insights from students were needed, along with observational studies on the delivery of 'peer practice learning' and a detailed evaluation of the ethical and legal issues associated with it.

The primary role of registration boards is to ensure that practitioners adhere to professional standards. Accreditation agencies undertake responsibility for ensuring the quality of education programs

that produce graduates eligible for registration. They could therefore encourage widespread adoption of a national framework for ethical experiential learning. Those professional associations that also have a course-accrediting function could encourage adoption of the framework in a similar way. Those that did not (e.g., Osteopathy Australia) could encourage its adoption by promoting accredited training programs, publishing relevant reports and journal articles on their websites and social media outlets, and funding further research in this area. All participants in this study reported that their regulating agencies and professional associations delegated the delivery of programs to the higher education institutions where students were enrolled. Thus their role in ensuring adoption of the framework would be to encourage, or even mandate, that such a framework be consulted when curricula are being developed. A national framework could provide broad principles applicable to all health disciplines. A framework for ethical experiential learning could:

- Ensure respect for students' rights
  - o Allow students to choose to participate or opt out and provide alternatives (Koehler and McMenamin, 2014; Outram and Nair, 2008; University of Queensland, 2015)
  - o Allow students to choose their own groups (Hendry, 2013; McLachlan et al., 2010)
  - o Inform students about what to expect in practical classes and what to wear (Rees, 2007; Wearn and Vnuk, 2005)
  - o Obtain written informed consent (Braunack-Mayer, 2001; Outram and Nair, 2008)
- Prepare educators for ethical pedagogy for experiential learning
  - o Provide training for new tutors and demonstrators to clarify what is expected of them and where to get support (McLachlan et al., 2010)
- Contribute to curriculum quality assurance and review cycles
  - o Collect and incorporate feedback from students and staff to improve the quality of teaching practice and enhance the student learning environment (Hendry, 2013)
- Reduce the risk to universities of failing to ensure their students' wellbeing/rights
  - o Develop and implement policies and procedures to ensure ethical experiential learning (Koehler and McMenamin, 2014)

4.4. Limitations of the study

As with all qualitative research, the findings of this study are context dependent and not intended to be generalised. However, the findings may have relevance to other contexts where students are engaged in experiential learning. In this study four researchers conducted the interviews and two researchers initially analysed the data independently before all researchers met to discuss and refine their findings until consensus was reached. This process was designed to limit potential biases. Furthermore, the findings of this study of health regulators were consistent with those that had also been reported from surveys of students and in other studies (e.g. a survey of clinical educators conducted by the same group of researchers). The scope of this research was limited to regulators and professional associations of seven health professions. Further research could compare perspectives of regulators, students and educators from other disciplines.

5. Conclusion

Experiential learning in nursing, chiropractic, occupational therapy, osteopathy, midwifery, paramedicine and physiotherapy was found to be a widespread and largely taken-for-granted pedagogical practice. Participants described the continuation of the same pedagogical approaches that they had experienced themselves as students. While risks to students' wellbeing were identified, the benefits of this primary pedagogical approach were deemed to justify any discomfort experienced by students. Consequently, experiential learning practices largely continue in their traditional form and assumptions that all students willingly participate in all experiential learning activities go largely unquestioned.

The increasing diversity of students enrolled in health courses has brought greater awareness of students' rights, particularly the right of students to choose not to participate in some learning activities. In some cases, but not all, modifications, like the use of screens in the practical room, were made to accommodate students' requests. Participants supported developing a framework that could be used by universities to guide ethical practices in practical class and to ensure that *all* students' rights are respected.

Conflicts of interest

All authors declare that there are no financial and personal relationships with other people or organisations that could inappropriately influence their work. There are no conflicts of interest.

Acknowledgement

This research was supported by a DVCR Grant, Southern Cross University.

Appendix A. Supplementary data

Supplementary data to this article can be found online at https://doi.org/10.1016/j.nepr.2018.11.003.

Semi-structured interview guide

- **Demographic data**:
  - o How long have you been a member of [ ] association/accrediting body? What is your role in the association/accrediting body?
- **Perception of current practices in experiential learning when students act as models**
  - o How extensive would you consider experiential learning to be in the health curricula you have reviewed?
  - o Have you observed examples of good practice when students act as models in practical classes?
- **Perception about the value of a framework for ethical peer-assisted learning/experiential learning**
  - o In your role as a representative of [ ] association/accrediting body, have you observed any guidelines or frameworks that ensure peer-assisted learning/experiential learning is conducted in an ethical way?
  - o Are you aware of any guidelines for frameworks from your previous practice or teaching experience?
  - o Do you think there is a need to develop a framework of experiential learning in health? (explore reasons for opinion)
- **Maximising uptake of FEEL**
  - o What role does your association/accrediting body have in making changes to teaching practices?
  - o How has that been achieved?
  - o If a framework for ethical experiential learning in health were developed, how could we encourage schools and teachers to take it up?

References

Australian Health Practitioner Regulation Agency, 2013. National Boards. Retrieved from http://www.ahpra.gov.au/Health-Professions.aspx.

Baldry Currens, J., Coyle, J., 2013. Practice-based learning: multiple dimensions and the importance of “others”. In: Higgs, J., Sheehan, D., Baldry Currens, J., Letts, W., Jenson, G. (Eds.), Realising Exemplary Practice-based Education. Sense, Rotterdam.

Barnette, J., Kreitter, C., Schuldt, S., 2000. Student attitudes towards same-gender versus mixed-gender partnering in practicing physical examination skills. Eval. Health Prof.

23, 360–370. https://doi.org/10.1177/01632780022034651.
Boud, D., Miller, E. (Eds.), 1997. Working with Experience: Animating Learning. Routledge, London.
Braunack-Mayer, A.J., 2001. Should medical students act as surrogate patients for each other? Med. Educ. 35 (7), 681–686.
Chang, E., Power, D., 2000. Are medical students comfortable with practicing physical examinations on each other? Acad. Med. 75 (4), 384–389.
Chen, J., Yip, A., Lam, C., Patil, N., 2011. Does medical student willingness to practise peer physical examination translate into action? Med. Teach. 33, e528–e540.
COAG Health Council, 2015. Communique 17 April 2015. A National Code of Conduct for Health Care Workers. Retrieved from. www.coaghealthcouncil.gov.au.
Creswell, J., 2013. Qualitative Inquiry and Research Design, third ed. Sage, London.
Crotty, M., 1998. The Foundations of Social Research. Meaning and Perspective in the Research Process. Allen & Unwin, St Leonards, Australia.
Delany, C., Frawley, H., 2012. A process of informed consent for student learning through peer physical examination in pelvic floor physiotherapy practice. Physiotherapy 98 (1), 33–39. https://doi.org/10.1016/j.physio.2011.04.347.
Grace, S., Innes, E., Patton, N., Stockhausen, L., 2017. Ethical experiential learning in medical, nursing and allied health education: a narrative review. Nurse Educ. Today 51, 23–33. https://doi.org/10.1016/j.nedt.2016.12.024.
Hendry, G., 2013. Barriers to undergraduate peer-physical examination of the lower limb in the health sciences and strategies to improve inclusion: a review. Adv. Health Sci. Educ. 18, 807–815.
Hilton, P., Barrett, D., 2009. An investigation into students' performance of invasive and non-invasive procedures on each other in classroom settings. Nurse Educ. Pract. 9 (1), 45–52. https://doi.org/10.1016/j.nepr.2008.03.005.
Hsieh, H.-F., Shannon, S.E., 2005. Three approaches to qualitative content analysis. Qual. Health Res. 15 (9), 1277–1288.
Hurley, L., Yardley, K., Gross, A.R., Hendry, L., McLaughlin, L., 2002. A survey to examine attitudes and patterns of practice of physiotherapists who perform cervical spine manipulation. Man. Ther. 7 (1), 10–18. https://doi.org/10.1054/math.2001.0430.
Kemmis, S., 2012. Researching educational praxis: spectator and participant perspectives. Br. Educ. Res. J. 38 (6), 885–905.
Koehler, N., McMenamin, C., 2014. The need for a peer physical examination policy within Australian medical schools. Med. Teach. 36, 430–433.
Koehler, N., Schafer, J., 2014. Peer physical examination policy. Med. Teach. 36 (9), 827. https://doi.org/10.3109/0142159X.2014.940873.
Lincoln, Y.S., Lynham, S.A., Guba, E.G., 2011. Paradigmatic controversies, contradictions, and emerging confluences. In: Denzin, N.K., Lincoln, Y.S. (Eds.), The SAGE Handbook of Qualitative Research, fourth ed. Sage, Thursday Oaks, CA, pp. 97–128.
Marley, J., 2009. Peer physical examination: time to revisit? Med. J. Aust. 190 (6), 342.
Martens, R., de Brabander, C., Rozendaal, J., Boekaerts, M., Van der Leeden, R., 2010. Inducing mind sets in self-regulated learning with motivational information. Educ. Stud. 36 (3), 311–327.
McLachlan, J., White, P., Donnelly, L., Patten, D., 2010. Student attitudes to peer physical examination: a qualitative study of changes in expressed willingness to participate. Med. Teach. 32, e101–e105.
Nulty, D., 2012. Curriculum Design. Retrieved from. http://www.griffith.edu.au/_data/assets/pdf_file/0004/437350/Curriculum-Design-Learning-Objectives-and-Outcomes.pdf.
Outram, S., Nair, B.R., 2008. Peer physical examination: time to revisit. Med. J. Aust. 189 (5), 274–276.
Parboosingh, J.T., 2002. Physician communities of practice: where learning and practice are inseparable. J. Continuing Educ. Health Prof. 22 (4), 230–236.
Patton, N., Higgs, J., 2014. Implications for health professional education. In: Higgs, J., Croker, A., Tasker, D., Hummell, J., Patton, N. (Eds.), Health Practice Relationships. Sense, Rotterdam, pp. 237–244.
Rees, C.E., 2007. The influence of gender on student willingness to engage in peer physical examination: the practical implications of feminist theory of body image. Med. Educ. 41, 801–807. https://doi.org/10.1111/j.1365-2923.2007.02779.x.
Rees, C.E., Bradley, P., Collett, T., McLachlan, J.C., 2005. Over my dead body?": the influence of demographics on students' willingness to participate in peer physical examination. Med. Teach. 27 (7), 599–605.
Rees, C.E., Wearn, A.M., Vnuk, A.K., Sato, T.J., 2009. Medical students' attitudes towards peer physical examination: findings from an international cross-sectional and longitudinal study. Adv. Health Sci. Educ. 4, 103–121. https://doi.org/10.1007/s10459-007-9094-y.
Reid, K., Kgakololo, M., Sutherland, R., Elliott, S., Dodds, A., 2012. First-year medical students' willingness to participate in peer physical examination. Teach. Learn. Med. 24 (1), 55–62.
Roberts, D., 2008. Learning in clinical practice: the importance of peers. Nurs. Stand. 23 (12), 35–41.
Rogoff, B., 1990. Apprenticeship in Thinking: Cognitive Development in Social Context. Oxford University Press, New York.
Rouse, J., 2007. Practice theory. In: Handbook of the Philosophy of Science, vol. 15.
Ryle, G., 2009. The Concept of the Mind, 60th anniversary edition. Taylor & Francis, Oxford.
Tolsgaard, M.G., Rasmussen, M.B., Bjorck, S., Gustafsson, A., Ringsted, C.V., 2014. Medical students' perception of dyad practice. Perspect. Med. Educ. https://doi.org/10.1007/s40037-014-0138-8.
University of Queensland, 2015. Clinical Skills Program and Peer Physical Examination. Retrieved from. https://medicine-program.uq.edu.au/files/612/clinical_skills_program_and_peer_physical_examination_policy_2014.pdf.
Vygotsky, L., 1978. Mind in Society: the Development of Higher Psychological Processes. Harvard University Press, Cambridge, MA.
Wearn, A.M., Bhoopatkar, H., 2006. Evaluation of consent for peer physical examination: students reflect on their clinical skills learning experience. Med. Educ. 40 (10), 957–964.
Wearn, A.M., Rees, C.E., Bradley, P., Vnuk, A.K., 2008. Understanding student concerns about peer physical examination using an activity theory framework. Med. Educ. 42 (12), 1218–1226. https://doi.org/10.1111/j.1365-2923.2008.03175.x.
Wearn, A.M., Vnuk, A.K., 2005. Medical students and peer physical examination: two case studies of strategies to improve safety and increase acceptance. Focus Health Prof. Educ. A Multi-disciplinary J. 7 (2), 88.