Better prepared, better placement: An online resource for health students

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Despite calls for better preparation of students and supervisors for clinical placement, few dedicated pre-placement resources have been developed. The aim of this project was to design, pilot, and evaluate an online resource to prepare health students and supervisors for clinical placements. Development of an online resource was informed by the literature and results from a preliminary scoping study. The resource was piloted with students in five health disciplines. Preparation for placement was facilitated by learning plans, negotiated between students, supervisors and clinical placement coordinators; an innovative suite of clinical scenarios designed to prepare students for ethical and emotional challenges that could arise on placement; and a suite of professional development resources for supervisors. Study participants confirmed the educational value of the *Better Prepared Better Placement* resource as a tool for preparing health students and supervisors for clinical placement. Strategies to encourage full engagement with the resource can facilitate emotional and social learning. *(Asia-Pacific Journal of Cooperative Education, 2014, 15(4), 291-304)*

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Clinical education is the preferred learning environment for preparing work-ready graduates for careers in health care, and therefore it is of great importance to maximize the learning opportunities for students on placement. More attention needs to be directed to *preparing* students and supervisors to make the most of the learning environment offered by clinical placement. Successful clinical placements depend heavily on effective communication between universities and their industry partners, in particular, to clarify expectations of all parties, including learning objectives of the placement, assessment tasks, roles, procedures, and support structures before the placement experience (Billett, 2009), and for educators to consider the best ways to prepare students for these experiences (Robinson et al., 2008; Spiliotopoulou, 2007; Welford, 2007). Continual open communication has been shown to nurture engagement and self-direction among students, thereby contributing strongly to quality learning (Bates, Bates, & Bates, 2007; Richards, Sweet, & Billett, 2013).

While it is undoubtedly important for students to have the technical knowledge and skills required for their placement, non-technical requirements are equally critical. Contemporary conceptions of work-readiness include organizational acumen, social intelligence, and personal characteristics (Walker, Yong, Pang, & Fullarton, 2012), signifying an expanded range of knowledge, attitudes and skills that need to be developed in students in professional-entry courses. Apart from ensuring that students have the necessary cognitive and procedural skills to contribute to the work that they will undertake on placement, attention also needs to be given to these other domains of development (Sedgwick & Yonge, 2008). The clinical placement component of any curriculum is demanding and managing students' stress is a chief concern, as stress may inhibit their reaching their full potential (Gilbert & Strong, 1997; Kevin, 2006) and even cause them to leave their studies (James & Chapman, 2009). Students need to know about the clinical situations they will face, what is expected of them in the setting, and they want the learning objectives to be made explicit

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(Rogers, Fitzgerald, Davila, Millar, & Allison, 2011; Sedgwick & Yonge, 2008). Preparation for clinical placement needs to include opportunities for students to gather such information, reflect on the challenges that they may face during their placement, and strategies to develop their coping skills (Tuenissen & Westerman, 2011).

Adequate preparation of clinical supervisors is crucial for securing optimal learning for students. The Clinical Supervision Support Framework (Health Workforce Australia - Directions Paper, 2011) advocates for clarity, explanations of culture, and education quality in clinical placement. Effective collaboration between universities and their industry partners is required to support and mentor their off-campus supervisors (Burns & Paterson, 2005; Raisler, O'Grady, & Lori, 2003; Robinson et al., 2008), many of whom lack adequate preparation for their supervisory role. Nash, Lemcke, and Sacre (2009) developed an enhanced model of final year nursing placements to cultivate successful transition to practice for final year students. It involved close collaboration with representatives from participating hospitals and a set of resources to support effective transition experiences, including a series of preceptor training modules and workshops for supervisors. Supportive guidance of clinical educators was also found to foster students' engagement with educational experiences that were afforded through clinical placement (Richards et al., 2013).

The widespread use of education technology has facilitated effective communication among stakeholders in clinical education, and this is particularly so when universities, students' residences and placements are geographically dispersed. The use of technology allows all stakeholders to engage in a dialogue at times and locations that suit their individual responsibilities and work/university pressures. However, a number of challenges for online learning still need to be overcome. It appears that not all students and supervisors want to engage with educational technology (Haigh, 2004; Ward & Moule, 2007) and this may be particularly true for online learning on clinical placement, which is perceived rather as an opportunity for developing hands-on practical skills. Moreover students and supervisors may lack the IT skills necessary to engage in online learning and there may be inadequate IT facilities available for use at the placement site (Honey, 2004).

Technology-enhanced learning tools include podcasting, e-portfolios, e-assessment, blogs, and wikis (Berg, Wong, & Vincent, 2010; Djukic, Fulmer, Adams, Lee, & Triola, 2012; Jenkins, Browne, Walker, & Hewitt, 2011; Smith 2014). Online case scenarios appear to be especially successful in e-learning. For example, Pulman et al. (2009) created 'Wessex Bay' to develop analysis of real life case scenarios through experiential learning. Scanlan and Hancock (2010) found that online discussion guided by a structured framework enhanced students' clinical reasoning during fieldwork. In another example, Miers et al. (2007) found case scenarios useful for interprofessional learning across sites. Online resources have also been used successfully to enhance communication among supervisors and students during their placement (Saarikoski et al., 2013) and to supervise students remotely, particularly during the transition phase between on-site supervision and independent practice (Wearne, Dornan, Teunissen, & Skinner, 2013),

Despite a growing body of literature on the use of online tools to support student learning *during* placement, there appears to be little literature on the value of technology in *preparing* students for the clinical placement components of their curricula. The aim of this project was to prepare third and fourth year health students for clinical placement using an online resource featuring the negotiation of learning contracts among students, their supervisors

and clinical placement coordinators, a range of online case studies based on real life clinical scenarios, and a suite of professional development resources for supervisors.

METHODOLOGY

The project consisted of two phases:
Phase 1: Resource Design. Development of the resource was informed by the findings from a preliminary scoping study and a review of the literature that confirmed the value of students developing a learning plan, establishing early communication between students and supervisors, clarifying roles, expectations and assessments, and the need to provide training resources for clinical supervisors. The resource design incorporated the principles of good practice that were advocated in the National Clinical Supervision Support Framework (Health Workforce Australia, 2011) and the advice of Billett (2011). A suite of innovative tools, including self-assessments, guides, questionnaires, background readings, videos, podcasts, second life scenarios, and reflective spaces for both students and supervisors was developed (see Figure 1). The resource was designed as a virtual pre-placement meeting place where students, supervisors and clinical placement coordinators could interact through an asynchronous online discussion of participants' backgrounds, expectations and the nature of the placement and supervision. Supervisors could also reflect on their own supervisory practices and develop strategies to accommodate students' learning goals within the constraints of the placement and supervision.

A key feature of the resource was the learning plan, negotiated between students, supervisors, and clinical placement coordinators pre-placement to encourage students to reflect on their own learning needs and the unique opportunities that a particular placement could provide.

Phase 2 Pilot and evaluation. Pilots were conducted in five health disciplines (exercise physiology, midwifery, nursing, occupational therapy, and osteopathy), each in two host organizations, with third and fourth year students and supervisors. Host organizations were a mixture of public and private, rural, remote, and metropolitan settings. Students and supervisors were paired and given access to the online resource up to two-weeks before the commencement of the placement. Table 1 shows the number of students and supervisors who piloted the resource.

Evaluation of the project was adapted from the first three levels of Kirkpatrick's evaluation model (Kirkpatrick, 1998; Phillips & Phillips, 2011):

- Level 1: Reaction to the resource. An online survey was designed to measure students and supervisors immediate reactions after using the resource. Participants were asked to complete the survey about the content and design of the resource and how effective it was in preparing them for their forthcoming placement. The survey was built in to the resource (see Figure 1).
- Level 2: Learning. We interviewed 13 supervisors and conducted six focus groups with students when placements were completed to understand participants' perceptions about what they had learned from the resource.
- Level 3: Behavior change. An online survey was emailed to participants 2-3 weeks after the placements were completed. Participants were asked to reflect on their transfer of learning from the resource to their work environment. The online survey comprised eight open questions and five closed questions.

Opening

VIDEO: Watch a video introduction (a brief orientation to the content and design of the resource)

- GUIDE: Read how to use this webpage
- POSTBOX: Share information through postbox
- FORUM: Get to know one another
- FORUM (hidden from students): Supervisor-Coordinator private space

Section 1. Getting Ready for Placement

This section prompts students and supervisors to reflect on their preparedness for the forthcoming placement with a range of readings and activities.

- Read: Read about clinical placement (literature relating to clinical placement including goals, students' and supervisors' rights and responsibilities, patient safety, giving and receiving feedback)
- CHECKLIST: Complete a checklist (students complete a checklist of administration requirements for placement, including vaccination card, criminal history check, fit for work certificate, working with children check)
- CHECKLIST (hidden from students): Complete a checklist (supervisors complete a checklist about their preparedness for supervision, including knowing students' level of knowledge and skills, assessment requirements)
- Respond to questions: Answer questions about your placement (the size of the facility, types of patients and conditions they will encounter, how they will be supervised, other health professions working at the site etc)
- Reflect: Reflect on your learning style (questionnaires)
- Reflect: Think about your placement learning (prompt questions including opportunity to contribute to the workplace, clinical competencies to be developed on placement, assessment of clinical competencies

Section 2. Making the Most of Your Placement

This section focuses on the development of an Individual Learning Plan. Students reflect on their own learning goals and learning styles, the learning objectives for the unit, and negotiate strategies to meet their own learning goals with their supervisor, overseen by their clinical placement coordinator.

- Write A LEARNING PLAN with your supervisor (students complete a learning plan using a template which includes the learning goals of the subject and their own personal learning goals)
- SIGN OFF ON YOUR LEARNING PLAN (learning plan is negotiated between student, supervisor and clinical placement coordinator)

Section 3. Clinical Scenarios

This section contains interesting multimedia resources and case studies to help you think about how to manage issues that could arise during clinical placements, including advice from students, supervisors, clinic managers, and patients.

- Read and listen: Dealing with issues (e.g., legal and ethical issues, dealing with difference, dealing with emotions, getting support)
- Read and listen: Advice about placement (advice from supervisors, students, patients and clinic managers)
- Watch: Examples of clinical supervision
- Watch: Professional behavior (second life and you tube videos)
- FORUM: Discuss the resources in this section

Section 4. Evaluation

In this section users of the resource are asked for feedback about the online resource to maintain its relevance and quality.

- ACTIVITY: Give feedback about this program (participants complete an online survey about the content and design of the resource and how effective it was in preparing them for their forthcoming placement)

Section 5. Resources

This section provides access to all the downloadable files, and details of references and definitions of terms used throughout the site.

FIGURE 1: Contents of the *Better Prepared Better Placement* online resource

TABLE 1: Summary of participants by discipline and placement site

Discipline	Placement site	Number of supervisors	Number of students
Nursing	Casino District Public Hospital	1	4
	Grafton Base Hospital	1	6
Midwifery	The Tweed Hospital	1	1
	Mullumbimby and District War Memorial Hospital	1	1
Osteopathy	SCU Health Clinic	2	3
	Feros Village Bangalow	1	2
Exercise physiology	Capricornia Allied Health Partnership (Qld Health)	1	1
	SCU Health Clinic	1	1
Occupational therapy	Logan Hospital – Mental Health Unit	1	1
	Balmain Hospital	1	1
	Longreach Hospital (Central West Hospital & Health Service)	1	1
	Bundaberg Special School	1	1
	TOTAL	13	23

Descriptive statistics were used to analyze quantitative data from online surveys. Qualitative data from transcripts of interviews and focus groups and from responses to open-ended questions in the online surveys were analyzed using the constant comparison method described by Glaser and Stauss (1967). Four researchers were involved in the constant comparative analyses of the qualitative data. Initial readings we used to identify codes which were modified discarded and augmented with repeated readings. Codes were repeatedly clustered into themes until meta-themes were identified. The development of the resource was progressively informed by feedback from evaluation data. The project received approval of the Southern Cross University Human Ethics Research Committee (Approval No: Approval ECN-12-175).

RESULTS

Learning from the Resource

Preparation for clinical placement using the *Better Prepared Better Placement* online resource could be described as promoting three levels of learning:

a. Learning how to locate information relevant for placement

Six responses were received to the online survey that was built into the resource to gauge participants' immediate reactions to the resource. This survey made up the penultimate section. Although encouraged by 'sign posting' to work through the site from the first to the fourth section, participants could navigate in any direction according their interests, which

may account for the low response rate to the survey. The survey contained two open-ended questions about the resources' strengths and weaknesses. The limited number of responses prohibits meaningful statistical analysis and suggestions of trends can only be reported. Both closed and open ended survey responses consistently suggested that learning initially consisted of superficial data gathering. The resource was described as a convenient repository of clinical placement information, including essential readings. As Supervisor 2 stated, "It's just great to have it all on the one site and I can actually see how students are progressing and how they are relative to one another. It's almost like the Facebook of clinical placement".

Students appreciated having a checklist of administrative requirements for placement in one area:

> There's an 'are you ready' checklist. There's one for the supervisors but there's also one for the students and just seeing all the things that are required before I go into the placement, all of that's there so I'm as prepared as I can be. Sometimes as a student you go and everything is quite new and it can be quite daunting as well but to have these things that you can tick off and go, "Right I've got this" or " I need this," you're either have the information there or it forces you to then go and follow up to obtain other things - whether it's getting the blue card or getting the police certificate or finding out about other things that I need to acquire. You're almost overloaded and overwhelmed whereas here you've got more time to prepare for all that so you're going into the clinical placement much better prepared. (Student 17)

b. Comprehending, interpreting and individualizing information

For up to two weeks before placement commenced communication and rapport were developed between student and supervisor, student and student, and supervisor and supervisor. Students were invited to tell their supervisors about their previous clinical placement experiences and their particular clinical interests. Supervisors were invited to tell students about their job roles and their practice and/or research experience and interests. This information exchange encouraged students to reflect on their particular learning needs and on strategies to develop them:

> My supervisor does three days with the acute care team and then two days on the ward and those are essentially two completely different jobs. So that gives me even more scope for developing because the two different roles really require two different kinds of skills so it's great. (Student 3)

> The information that is always really useful is what are the parameters of your supervisor's role so what do they do, what are you going to be doing when you're on the placement, because their role and what their day and their work looks like determines the kind of areas that I look for to develop my personal growth. (Student 7)

The online resource also provided an opportunity for participants to understand information about the placement and to interpret its personal relevance to them. Two features of the resource were especially useful in promoting interpretive and emotional learning: the learning plan that was negotiated between students, supervisors and clinical placement coordinators; and the clinical scenarios that prepared students for some of the challenging emotional and ethical situations that can arise on placement. Students learned to identify their own learning needs by constructing learning plans. Student 20 remarked, "What really helped me was setting my goals, in terms of developing what I wanted from prac." Learning

plans also helped supervisors to be better informed about students' personal learning goals for the placement:

> Each student comes into the program with various learning issues, with gaps in their knowledge base and they know about those better than I do and so this was a great tool for them to actually articulate that to me and that puts me in a better position to then focus on those particular areas with them and with the learning contracts we can negotiate and streamline them to what we need to focus on with each individual student. (Supervisor 2)

Participants found the clinical scenarios that were provided as text, podcasts, videos, and second life very useful. Clinical scenarios included issues that students and supervisors might encounter on placement and advice from students, supervisors, clinical managers, and patients relevant to all disciplines. They exposed students to some of the emotional and ethical challenges that they might encounter on placement and, for many, provided the first exposure to health workplace cultures. Discussing these scenarios with supervisors and other students enabled students to reflect on, and develop, their own emotional readiness for work. Typical feedback about the clinical scenarios included: "Clinical scenarios are a great way for me to make sure I'm prepared for prac. and armed with the right approach to dealing with issues and get the most out of my time" from Student 8. And, Supervisor 2 commented that "I use the scenarios in a debriefing with students. They've got an opportunity for feedback and that's the dialogue that can occur in the section where we can post comments."

Clinical supervisors also valued the professional development materials and the sharing of knowledge and resources:

> It helped me in my role as a supervisor. It was good because there was a discussion in relation to how to support a student, how to treat a student. There was a scenario about a physiotherapist and how differently her behavior was interpreted. That's actually good education for a clinical teacher. (Supervisor 5).

And,

> I think it's very important that we can share our knowledge. I think we need to be proud of our role. I'm proud to be a clinical teacher. I enjoy it. I think it's important that we have strategies to standardize how we prepare our students, what we want from them, and have a safety net for a clinical teacher. (Supervisor 7)

c. *Leaning that changes the way participants enacted placement*

Time constraints of data collection allowed only a 2-3 week gap between completing placements and completing the final online survey. Twelve participants completed the final survey, limiting the scope for statistical analysis. Those responses that were received were mixed, just over half reporting that changes in their attitudes and/or behavior would be maintained 'somewhat' or 'to a significant extent'. Open-ended responses suggested that for some participants learning from the resource had changed their behavior. Two supervisors provided examples of things that they do or say differently as a result of using the resources: Supervisor 5 remarked, "I encourage the new clinician [student] to be more involved in the deliberations over a diagnosis or treatment, even though they are there as observers, and I encourage them to ask questions at appropriate times" and Supervisor 9 said, "I endeavor to get a clearer picture from students about their specific outcomes from placement and I achieve this with asking them more questions and really listening to what they are trying to tell me".

Anonymous student survey responses suggested that transformative learning with the potential to change behavior occurred in some students. These comments included:

> "I now understand and recognize the importance of a well formulated learning plan."
> "Proper, prior preparation prevents poor performance."
> "I learned how to know what I want to get out of the experience."
> "Professional conduct skills were enhanced."
> "Ability to communicate with supervisors and other students."
> "Time management, confidence."

Evaluating the Resource

Participants' feedback was used to refine the resource. A summary of their feedback on the resource's utility is presented in Table 2. Both students and supervisors identified similar strengths and weaknesses. One key difference was that students reported the importance of early communication with their supervisor and other students to getting to know one another and to begin building rapport.

Some participants questioned the relevance of the resource for all clinical placement settings. For example, students with extensive clinical placement experience may not gain the same benefit as those who are preparing for their first or second placement. In some disciplines supervisors already had access to a number of high quality resources such as nursing practical manuals and occupational therapy Student Practical Evaluation forms (Division of Occupational Therapy School of Health and Rehabilitation, 2008). Some participants also preferred face to face orientation to clinical placement. This was particularly the case for supervisors who had limited or no internet access and/or IT skills to be able to fully use the resource. One supervisor commented on the time involved in learning how to use the resource: It's much easier for me to get on the phone and say what I've got to say than to have to make the time to do that [learn to use the resource] (Supervisor 1). Another commented on the importance of face-to-face interactions:

> I do feel that my students very often are very tired of online things. They are feeling that online [interaction] is taking over face-to-face and in nursing everything you're going to do with your patients is face-to-face. They want to learn face-to–face. (Supervisor 6)

Responses also highlighted the need for technical improvements to enable easier navigation. Other comments suggested that insufficient time to use the resource before commencing placement, the non-compulsory nature of the resource, and work overload prevented full uptake of the resource.

DISCUSSION

Adequate preparation for clinical placement can contribute to positive and rewarding experiences that assist students' progress towards the skills, knowledge, and attitudes required for professional practice. Enhanced communication among stakeholders was a useful strategy afforded by the *Better Prepared Better Placement* resource to prepare third and fourth year health students and their supervisors for placement.

TABLE 2: Summary of student and supervisor responses (Kirkpatrick Levels 2 and 3)

Themes	Students	Clinical Supervisors
Strengths of the resource	• Clarifies expectations	• Clarifies expectations
	• Learning about supervisors and informing supervisors about their level of learning, clinical interests	• Learning about students and informing students about their role, clinical interests
	• Learning about placement	• Informing students about placement
	• Building rapport with supervisors	
	• Building rapport with students	
	• Helpful clinical scenarios	• Helpful clinical scenarios
	• Setting learning goals	• Supervisor could see the benefits for students, including a variety of media for learning, setting learning goals
		• Professional development in supervision/sharing knowledge among supervisors
		• Convenience/repository for learning materials/decreased workload
Weaknesses of the resource	• Not relevant in all settings (e.g., limited relevance for students with extensive clinical placement experience)	• Not relevant in all settings (e.g., limited/no internet access on placement)
	• Dislike online media	• Students may prefer face to face orientation
	• Design – difficult to navigate	• Design – difficult to navigate
		• May increase workload
		• Requires a level of IT skills that not all supervisors have
Recommendations for use of the resource	• More time to use resource before placement	• More time to use resource before placement
	• To increase students' use of the resource it should be made compulsory	
		• Add additional resources for supervisor's professional development
		• Adapt resource to own discipline

Much of the literature on clinical placement discusses the need for, and presents examples of, supportive clinical placement models, including the cluster model proposed by Bourgeois, Drayton and Brown (2011) which encouraged peer learning and readily available access and contact with clinical teachers during placement. It seems reasonable that such benefits would be extended by providing opportunities for peer learning and easy access to supervisors before placement begins.

According to participants, the online resource enriched both students' and supervisors' preparation for clinical placement in a number of ways: it helped clarify expectations, made roles, responsibilities, and procedures explicit, and allowed students to undertake analysis of their skill-set against the learning goals and then to develop a learning plan so that they could make better use of the learning opportunity afforded them during their clinical placement. Improving students' skills, knowledge, and confidence are major considerations when designing learning contracts (Health Workforce Australia, 2011), a well-known pedagogical strategy used in clinical settings. Learning contracts have two main uses: one is for remediation when students are deemed to be performing poorly (Bailey & Toughy, 2009). The other is for establishing an individualized agreement between a student and teacher about specific areas of learning within a unit of study - the version used in the *Better Prepared Better Placement* resource. Both uses have been found to increase students' motivation and autonomy and improve communication between students and teachers (Chyung, 2007; Knowles, 1986; Smedley & Dympna, 2009; Wai-chi Chan & Wai-tong, 2000).

It appears that the resource provided opportunities for different levels of learning. The most superficial level occurred when participants used the *Better Prepared Better Placement* site as a central repository of information and links to further resources about placement. Such a use could be especially valuable for off-campus students and students in remote placements. The resource also acted as a virtual meeting place for participants and facilitated communication and information exchange, a process strongly recommended in the literature as a means to facilitate student learning (Bates et al., 2007; Richards et al., 2013). Participants also used the resource as a place to reflect on their personal learning goals and to understand and interpret information about the placement experience from the perspective of their own cognitive and emotional learning needs. The processes of information gathering, interpreting and reflecting pre-placement familiarized students with many aspects of the forthcoming placement, including details of the facility, information about their supervisor and the supervision model to be used, assessment requirements, rights, responsibilities, and the opportunity to set achievable learning goals. In this way the stress arising from unknown challenges associated with clinical practice (Sedgwick & Yonge, 2008) could be reduced.

Perhaps the most important contribution that the *Better Prepared Better Placement* resource provided was the opportunity for emotional and social learning. Clinical placements can be stressful experiences for students, who may have had little preparation for clinical placement beyond completing relevant documentation (Gilbert & Strong, 1997; James & Chapman, 2009; Kevin, 2006). Students need to be prepared to develop in domains like organizational acumen and social intelligence, and to develop personal characteristics and work competence (Walker et al., 2012). The *Better Prepared Better Placement* online resource was designed to expand students' preparation for clinical practice into these domains. Clinical scenarios were a popular feature of the *Better Prepared Better Placement* resource, as they have been in other studies (Pulman et al., 2009). The *Better Prepared Better Placement* scenarios were based on actual cases and designed to be augmented with prompt questions, reflective spaces, and

discussions. Used in this way they provided a platform for reflexivity, emotional development, and insights into the health workforce cultures they were about to enter. The pedagogical challenge is to create experiential learning experiences that take participants from 'witness' to 'enactor' (Murray, 1997): participants need curriculum time to discuss and reflect on their own responses to clinical scenarios and to learn through engagement with their peers.

Not all online resources were widely taken up. Issues of poor quality and lack of intuitive navigation are possible reasons (Pivic, 2007). Some sites were difficult and time-consuming to learn to use. Difficult navigation was commonly reported by participants in this study, which prompted a major design revision. Moreover, online resources for clinical placement have additional challenges to overcome: clinical placement may be seen as the place where theory is translated into practice, and for many that means a move away from computer-based work to hands-on practice. It is the responsibility of all educational designers to develop resources that can offer 'more immersive, emotionally-engaging' online resources (Pivic, 2007) and virtual conversation (Cross, O'Driscoll, & Trondsen, 2007).

This resource could be used to develop quality supervision of students. By engaging with the resource supervisors learned relevant information about their students and could take steps to accommodate their individual learning goals within the constraints of the subject, workplace, and time. Making information about the workplace available to students before placement (e.g., the types of patients or conditions usually treated, the size of the facility, key staff who work at the site, other disciplines working at the site) meant that less time needed to be spent orienting students at the site, leaving more time for practice. Supervisors also used the resource for professional development and could see opportunities for sharing experiences, information, and resources with supervisors in other sites and in other disciplines. Supportive guidance of supervisors has been a feature of recent clinical placement literature (Health Workforce Australia, 2011; Nash et al., 2009). Richards et al. (2013) note that even the most inviting learning tools will not be taken up unless students elect to engage in them. The authors found that supportive guidance from clinical supervisors fostered agentic learning in medical students.

The main limitation of this study was the low external validity of the survey results because of the small number of participants who piloted and evaluated the resource. A study involving larger numbers of participants is required to confirm the results, including suggestions that full engagement with the resource (i.e., with supportive guidance from clinical supervisors and opportunities for peer learning) can contribute to emotional and social learning. Full engagement could be encouraged if it was a compulsory inclusion of the curriculum and if adequate time was allocated.

Although the resource was designed for use by any health discipline, some disciplines wanted to modify it to suit their own needs, including using discipline-specific terminology and images. There may be some advantages in that: disciplines may take ownership of the resource and be responsible for maintaining its relevance and currency by uploading research updates and revised clinical placement guidelines. Given that clinical supervisors in any setting are likely to be approached by several universities to take their students, if this resource were taken up and modified by one discipline group, then in time all clinical supervisors and students in that discipline would become familiar with it. A discipline-wide approach would increase familiarity with and use of the resource, and could contribute to improved clinical education. However, a discipline-wide approach may undermine one of

the original aims of the resource, namely to promote cross-disciplinary engagement. Although not overtly cross/interdisciplinary, the resource does promote discussion among students and their supervisors about other health disciplines encountered in the clinical placement. Clinical scenarios drawn from many disciplines were designed to raise appreciation of the similarities and differences among discipline groups and allow students, supervisors and clinical placement coordinators to participate in a dialogue. Such a discussion can not only help students and supervisors from different disciplines to get to know one another but also prepare them for clinical practice settings that will be increasingly team-based and multidisciplinary.

CONCLUSION

According to study participants, the online resource *Better Prepared Better Placement* provided an innovative suite of resources that helped prepare third and fourth year health students and supervisors for clinical placement. It afforded a learning environment where participants could learn how to gather data, how to comprehend, interpret and individualize that data, and to assimilate their learning into their behavior on placement. Participant learning was supported by establishing early communication among stakeholders, learning plans, negotiated between students, supervisors, and clinical placement coordinators, and a suite of professional development resources for supervisors. Students' learning went beyond information processing and presented opportunities for emotional learning, particularly through the use of clinical scenarios that were designed to prepare students for ethical and emotional challenges that could arise on placement. Strategies to encourage full engagement with the resource, such as making it a compulsory component of the curriculum, improving navigation around it, and introducing it with adequate time before placement are likely to encourage interpretive and transformative learning.

DECLARATION OF INTEREST

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