Clinical educator’s priorities for their development: Introducing the ClinTeach Website and Conference.

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Purpose. This project aimed to address development priorities, defined by clinical educators, with a national website and conference, ClinTeach. ClinTeach supports both disciplinary expertise and pedagogical knowledge for clinical educators in work-integrated contexts.

Methods. A naturalistic mixed methodology was adopted to address the aim of the project (LeCompte and Preissle, 1993). A needs analysis survey explored educators’ view of their development priorities in scholarship, leadership, professional development, and discipline content. ClinTeach website and conference was designed to align to reported priorities for educator development. Educators in three professional fields, across two universities and two faculties evaluated ClinTeach. An evaluation survey evaluated ClinTeach as meeting those priorities. Quantitative: survey reliability was tested by Cronbach’s Split Half reliability analysis, 0.79. Data was entered into SPSS™ for analysis (p<0.05 statistically significant). A Wilcoxon signed rank test was performed on matched pair responses from clinical educators about themselves and about faculty priorities. Analytics was used to determine website use. Qualitative: NVivo™ for coding and narrative organisation; iterative theme analysis was completed by three independent assessors.

Results. Qualitative evaluation of the conference was simply excellent. WIL educators’ priorities in scholarship, professional development and discipline content were met by the conference and website. Website maintenance and engagement emerged as an issue.

Conclusion. ClinTeach is an effective model for the enhancement of clinical education by the development of clinical educators, well addressing priorities for educator teaching.

Keywords: Professional development, clinical educators, website, conference

INTRODUCTION

Clinical education functions to develop the next generation of health practitioners. Parsell and Bligh (2001) approached the issue of clinical teaching in medicine from the view of five questions that are important for any clinical educator:

What do I need to know to be an effective clinical teacher?
What role(s) will I need to adopt?
What attributes do I need to possess?
What teaching strategies do I need to apply, and in what circumstances?
How do I know that my clinical teaching is effective?

Any development program for clinical educators prudently seeks to support the answers to each of these questions. In so doing, clinical educators work toward mastering a range of teaching skills that effectively engage students.

The perceptions of students about that teaching, and those teaching skills, are key factors shaping teacher development objectives. Henzi et al. (2006) reviewed students’ perspectives about their clinical education responses from 23 of the 65 dental schools in North America and found that students’ strongest perception of their clinical education was their relationships with faculty staff, but also reported that the dental clinic was often an efficient learning environment. Students associated clinical teaching excellence with positive patient interaction and knowledgeable supervising staff but found insufficient numbers of teaching staff; insufficient, inconsistent or belittling feedback; heavy workload in administrative tasks and stress in meeting procedural requirements were strong concerns in their clinical education.

McLean et al. 2008 describe forces driving the introduction of staff development initiatives as either internal (of benefit to the individual / Faculty, for example orientating new faculty members; supporting individuals to improve; encouraging career progression) or external (conforming with University expectations; and accountability requirements). Whilst the external drivers may be the strongest, having potential penalties
attached for non-compliance, it is important to ensure that clinical educators see the benefit to themselves of taking part or uptake will be low.

Steinert et al. (2006) conducted a systematic review of faculty development initiatives and identified a number of features of effective interventions based on their analysis of 53 published papers reporting faculty development programs. Whilst in medical education, this review holds value for dental education. Interesting key findings were that educators who participated in development reported increased knowledge of educational principles and gains in teaching skills. In addition, where formal tests of knowledge were used, significant gains were shown and changes in teaching behaviour were consistently reported by participants and were also detected by students. Key features of effective faculty development included those programs that utilised experiential learning, provided feedback, facilitated effective peer and colleague relationships, incorporated well-designed interventions following principles of teaching and learning, and used a diversity of educational methods within single interventions.

These key publications, together with the invaluable input by current clinical educators participating in the survey, have guided the design of the theoretical basis for a development program for clinical educators shown in Table 1.

TABLE 1. Theoretical basis for clinical educator development program

- Apply educational principles in the design and development.
- Provide understanding of teachers’ educational practices reflecting the real learning environment.
- Acknowledge the importance of cultural context, characteristics of educators and intuitive teaching ability.
- Develop more programs that extend over time, to allow for cumulative learning, practice and growth.
- Develop programs that stimulate reflection and learning among participants, raising their awareness of themselves as clinical educators.
- Include ongoing self-directed development with ‘educator-directed’ interventions.
- Align the question of voluntary participation to local needs. Participation is expected and required.
- Evaluation using Kirkpatrick’s model of evaluating educational outcomes describing four levels of outcome: participant reaction, participant learning, change in participant behaviour and impact of changed behaviour on students and on patients/clients.
- Develop program variations that support clinical educators to move in and out of academia enhancing their clinical careers.

In the “academic” health area, clinical educators (that is, teachers, supervisors, tutors, mentors etc.) face competing challenges in the intensive learning environment of the clinic or hospital that is also a patient care setting. Additional stressors of patient outcome, student confidence/competence and facility service goals coexist. Nevertheless, preparing health practitioners for their teaching roles as clinical educators by faculty development programs is regarded as essential to enhancing teaching effectiveness. Whilst the higher education sector places a premium on student achievement, increasing recognition of the importance of educator development is emerging. Increasing focus on professional orientation for the new teacher in academia, teaching renewal and development, curriculum development and development of skills in educational teaching scholarship characterises university teaching.

The alignment of programs to standards for clinical educator teaching is not a widely held practice, taken up with high variability amongst health professional groups. Bullock and Firmstone (2008), for example, prepared guidelines for dental educators in terms of developing standards, although the standards are not well utilised in faculty development.

Clinical educators all possess a qualification to practice a health profession in that state or country. If in active professional practice, that practice may be or may have been (if retired), located in private practices or public sector hospital clinics. Other additional qualifications include specialisation, research-based degrees and degrees in other disciplines. A small minority of educators have additional qualifications such as in business, other health fields, education or law. If this community of clinical educators is considered to be constituted of “health clinicians” who also teach in their profession, their choice to contribute to university teaching tends to reflect a stage in their career:
Early career clinical educators are those transitioning from student to a part time teaching role, possibly pre-academic or possibly pre-specialisation.

Mid-career clinical educators are those clinicians with and without ongoing clinical practice activity and with and without aspiration for a university academic career.

End career clinical educators are those transitioning from full time practice to a part time teaching role, pre-retirement and active/post-university academic career.

Clinical educators are employed by a University faculty full-time, part-time, or sessionally; they provide education to students in undergraduate, graduate, speciality and continuing education programs. Teaching may be based at patient care sites located at metropolitan/rural/regional or a combination of these sites; it may or may not provide additional educational services like assessment of written work, lectures, tutorials; it may or may not be provided office amenities for its use in the faculty teaching sites and may or may not be employed by the faculty in times of the year when students are not in clinical practice.

Most clinical educators report receiving some preparatory advice for their clinical teaching usually provided by discipline leaders. Existing educational opportunities for clinical educators in university faculties and schools generally include formal and informal education, usually discipline-based and facilitated by academic staff with an interest in faculty development. Subject matter is almost exclusively clinical practice updates or aspects of teaching/hospital content and policy. Ad hoc hands-on sessions are infrequently held in new clinically-relevant techniques or instrumentation, usually held following request by clinical educators. Interest in and uptake of these staff-presented sessions is usually good. However, there appears to be minimal consultation with educators or students on needs, no multidisciplinary content, no on-line offerings, little formal evaluation and no follow-up. Lately, Continuing Professional Development (CPD) points are being issued for some sessions. Training opportunities provided on the main university campus are poorly attended by faculty staff; anecdotally, reasons include geographical difficulties of attending off-site training, related both to travel time and need to be on-site in case of clinical emergencies; perceptions that generic training did not adequately address specific needs of dental teachers; and poor communication between the main University and the faculty.

In order to most effectively produce a development program for clinical supervisors, a situational and needs analysis of what clinical supervisors would prioritise for their own development was a sound start. The current study focussed on dentistry and oral health as an example of clinical educators representative of health profession clinical educators. This article presents findings of such an analysis from the case of the Faculty of Dentistry at the University of Sydney as convenient example of a community of clinical educators. The development of the ClinTeach initiative was the product directly designed to meet the findings of the needs analysis.

METHODS

1. Needs Analysis.

The priorities clinical educators perceive for their professional development in teaching was explored using a naturalistic mixed methodological approach based on stages suggested by LeCompte and Preissle (1993). A convenient cohort of dental and oral health clinical educators was selected. This approach was chosen to provide a context-rich study that would carry deep meaning for the clinical educators as a result of their engagement in project processes beyond being invited as participants. An added objective was to tap into the tacit and intuitive understanding considered to be possessed by clinical educators. An online survey, Priorities for Professional Development, was designed. The survey had three elements. The first was focused on areas of relevance in development of clinical educators in dentistry and oral health in a quantitative preference construct. The elements of clinical teaching that were used were:

- Aspects of Clinical Teaching
- Scholarship of Teaching
- Leadership in Teaching
- Clinical Educator Development Activities
- Topics for Clinical Educator Development
- Topics for Discipline-specific Content
- Clinical Educator Development Session Preferences.
The second element had a qualitative construct, with open-ended questions to allow participants to report their social reality of clinical teaching and, in analysis, capture a collective narrative of their experience. These questions were:

- How many years have you been teaching in clinical dentistry or oral health?
- What are your qualifications, and where and when did you receive these qualifications?
- Where and with what group of students do you currently teach clinical dentistry or oral health?
- In which discipline, program and/or cluster and/or theme are you currently classified in your clinical teaching?
- What prompted you to consider teaching as a clinical educator and how does this teaching benefit you?
- What do you think students most value about your teaching as a clinical educator?
- What are your personal goals in the next few years in taking a role as a clinical educator in Dentistry and Oral Health?

A final element in the investigation was the correlative study exploring interplay between an authentic reflexive assessment by the clinical educators of their own capability as educators against the judgement of these educators of faculty priorities for clinical educator development. This online “Priorities for Professional Development Survey” was developed to examine the current position and research the needs of the target audience in Dentistry and Oral Health: all clinical educators in the Faculty. The survey aimed to identify perceived training needs for the clinical teachers’ educational roles, attitudes to training, preferences for delivery of training and barriers to training within the teaching environment.

The 60-item online survey instrument was developed and reviewed by a professional panel for content validity. Minor language changes were subsequently made. After the design of the first draft, the survey was trialled with volunteers who were asked to attempt the survey and comment on its design and content to ensure readability and content relevance. It was piloted amongst a group of educators and non-educators which improved construct validity by providing valuable modifications. Questionnaires were further tested for reliability using Cronbach’s Split Half reliability analysis (0.79). Data was entered into SPSS version 15.0 for descriptive analysis and examined for frequency distribution. Cross tabulations were performed using Fisher’s Exact Test (as several cell counts were <5) to identify associations between groups of data collected. A Wilcoxon signed rank test was performed on matched pair responses from responses from clinical educators about themselves and about faculty priorities. The level of significance was set at p < 0.001.

2. ClinTeach Website design.

The development and design of the ClinTeach website and the ClinTeach conference was to directly address the findings from the Priorities for Professional Development survey. The ClinTeach website was designed by a professional webdesigner and developer in consultation with the study project team constituted of research academics, a faculty educational curriculum design officer, and a faculty information technology officer. The website team met regularly to progress the website design.


The ClinTeach 2013 conference was held in Canberra Australian Capital Territory, Australia on Saturday 25th May, 2013 in the Hyatt Hotel Canberra, within the parliamentary triangle. This location was selected to equitably allow both rural and metropolitan clinical educators to attend. Clinical Educators from both Charles Sturt University School of Dentistry and Health Sciences and Sydney Faculty of Dentistry and Faculty of Health Sciences, Medical Radiography, were invited to participate and the final list of attendees comprised delegates from all these groups. The conference agenda included the following presentations designed to be of direct disciplinary and educational importance to all the conference delegates: Update in Pain Mechanisms; Standards-How Do They Relate To Clinical Assessment?: Cone Beam Computed Tomography and Work-Integrated Learning: Implications for Clinical Teachers. The conference included the Launch of the ClinTeach Website.

RESULTS

Needs Analysis

The largest group of respondents possessed only a primary professional degree in Dentistry or Oral Health (45%). A further 24% also had a specialist dental degree and 4% also had formal educational degrees. The
remainder of respondents also possessed fellowships, non-health degrees or other qualifications. The survey identified a number of educational areas where educators felt training would be valuable, and also indicated that their preference for delivery was via short workshops or a blended approach incorporating a mix of face-to-face delivery and self-directed study. In regard to the three elements of the survey, the following were found.

Clinical educator perceptions: HIGH priority for development programs

In specific findings, respondents considered the following aspects of clinical teaching were a high priority in Clinical Educator Development:
- assessing learner needs
- providing reliable and valid assessment
- communicating constructive assessment to learners
- identifying learners who are at risk of failing
- identifying learner need for more guidance
- incorporating active learning strategies
- assessing changes in learner competence
- teaching dental techniques and fine skills
- teaching patient care

In regard to the scholarship of teaching, the following aspects were a high priority in Clinical Educator Development:
- understanding expectations of a teacher
- developing myself as an educator
- exposure to teaching and learning theory
- preventing burnout in teaching skills

In regard to leadership in teaching, the following aspects were a high priority in Clinical Educator Development:
- being “on board” with faculty vision for teaching
- collaborating in group processing of teaching skills
- understanding mentoring of junior clinical educators
- skills in managing conflict during teaching
- being a source of advice for junior clinical educators

Respondents were generally interested in a diverse range of possible clinical development activities, but they expressed interest in the following:
- peer-to-peer exchange of ideas
- in-clinical observation of my teaching with feedback and consultation with professional educators
- student/teacher combined discussion sessions
- short course run in collaboration with other Health faculties

Clinical educator perceptions: LOW priority for development programs

In specific findings, respondents considered the following aspects of clinical teaching were a low priority in Clinical Educator Development:
- Promoting experiential learning
- Recognising learners’ readiness for independence

In regard to the scholarship of teaching, the following aspects were a low priority in Clinical Educator Development:
- Attending teaching development forums
- Understanding expectations of teacher to improve their teaching skills
- Contributing to developing educationally-based research
- Preventing burnout in teaching skills
- Availing oneself of opportunities for peer review of my teaching

In regard to leadership in teaching, the following aspects were a low priority in Clinical Educator Development:
- Having emotional intelligence skills
• Managing relationships between clinical educators
• Understanding budgetary planning in regard to teaching
• Collaborating in group processing of teaching skills
• Managing time in regard to teaching

Barriers that prevent good practice in clinical teaching

In general, the respondents provided rich comment about the barriers to good practice in clinical teaching. Focus was on weak support in the faculty culture, lack of teaching orientation and mentoring and poor communication between general and specialist educators. An illustrative comment was:

There is a lack of acknowledgement that effective clinical teaching requires more than knowledge of the assessment grades and knowledge of the curriculum (ie which procedures/materials applicable to particular circumstances). There is a perception that the clinical tutors may not be interested in developing their own teaching practice.

There was a strong preference for association of the development sessions with Continuing Professional Development requirements and those that were conducted by both Faculty of Dentistry teachers and University educators. Preference for Clinical Educator Development sessions for which the respondents were prepared to attend were:

• during the day, on a weekend, once a semester
• include an assessment component
• be associated with a certificate
• be located at any of the teaching site

Clinical educator perception of their own ASPECTS OF CLINICAL TEACHING

In this section, respondents were asked to reflect on their own teaching skills and most respondents reported mastery of teaching (which was defined as being able to teach others) in the areas of teaching patient care, acting as a clinical role model and recognising patient diversity. Interestingly, and somewhat ironically, the majority of respondents felt these were also a priority for development by the faculty in a development program. Respondents felt they needed development in their teaching skills in the areas of using assessment schemas, incorporating active learning strategies and understanding learner’s learning styles.

Clinical educator perception of the SCHOLARSHIP OF TEACHING

In this section, respondents were asked to prioritise the importance of aspects of scholarship. Respondents on the whole did not feel they had mastery in any of the alternatives presented and reported that they needed development in:

• contributing to scholarly discussion about teaching
• attending teaching development forums
• contributing to developing educationally-based research
• availing oneself of opportunities for peer review of my teaching
• exposure to teaching and learning theory

Clinical educator perception of the LEADERSHIP IN TEACHING

In this section, most respondents reported mastery of teaching (which was defined as being able to teach others) in the areas of being a source of advice for junior clinical educators, having emotional intelligence skills, managing teaching in stressful circumstances and managing time in regard to teaching. Respondents felt they needed development in understanding budgetary planning in regard to teaching, being “on board” with Faculty vision for teaching and collaborating in group processing of teaching skills.

Needs Analysis Open comments

In the data analysis process, the holistic approach was adopted to organise data (in this case respondents answers to the survey questions) using NVivo around each question. Project team members independently reviewed each set of responses to each question and identified codes by using the phases of organising,
connecting and corroborating or legitimating after Crabtree and Miller (1999). In regard to each of the needs analysis questions, the predominant perception from the respondents following qualitative analysis are epitomised with the quotes given below:

What prompted you to consider teaching as a clinical educator and how does this teaching benefit you?
“Contribution to the community is my main purpose of teaching since I have 30 years of clinical experience. It gives me the benefits of understanding how students learn and apply and so I know how I can teach them to assist their progress.”

What do you think students most value about your teaching as a clinical educator?
“Students most value me in giving them valuable opinion and feedback for their clinical practice, guiding them through cases and questioning their knowledge and understanding.”

What are your personal goals in regard to your role as a clinical educator in Dentistry and Oral Health?
“To help graduate students who are knowledgeable, skilful and who have a caring, gentle and altruistic thought pattern. Also trying to impart organisation and stress management.”

What do you think prevents Clinical Educators from teaching at their best?
“Largely, clinical teachers have expertise in their professional/technical field, but often do not base their teaching practice on contemporary concepts of learning. Also, dentists are largely not skilled in establishing and developing a therapeutic relationship with students, since the pervading nature of dental practice is procedural rather than counselling/consultative, and hence need to learn these skills as well.”

What do you think best supports Clinical Educators to teach at their best?
“Ongoing education and communication within the discipline with feedback and discussion of situations that arise in different sessions and how they are dealt with.”

“Beginning with the end in mind”, what would an ideal Clinical Educator Development program essentially include in your opinion?
“In order to be practical, interactive, workshop style sessions are essential, with online modules to complete before, and in between the face to face sessions. ‘Core’ and ‘extension ‘reading materials could help to engage participants with different levels of interest.”

**Evaluation of Website.**

The ClinTeach website was launched at the ClinTeach Conference held in Canberra, NSW Australia on May 25th 2013. Limited further advertising about the website was carried out. Website usage was determined using the web statistics analysis program, Urchin v6.602 ©2009 Urchin Software Corporation. (by Google). This program analysed web server log file content and traffic information on that website based upon the log data over the period from May 2013 to May 2014. Greatest usage of the website occurred in the first three months after the website launch, usage after that has fallen. Most popular content were the sections Academic Expectations, Standards-Based Learning and Teaching and Interprofessional Practice and users viewed up to 11 pages of the site. These sections were also the top entrances and exit sites. Length of visits were generally up to 3 minutes per page on average with Thursday being the most popular day for entering the site and the day most failed connections to the site occurred. All video and slides from the ClinTeach conference presentations were posted on the ClinTeach website and all of these were the most requested downloads with the presentation on “Standards-Based Assessment” being the most popular followed by the “Pain Update and Mechanisms”. No posts to the website were recorded over the project period and there were periods of relatively high broken links. The majority of university users were from those using the University of Sydney and La Trobe domain using Internet Explorer and Googlebot browsers. Academic staff voiced concerns about the intellectual property issues in regard to posting of their material on the site, so little of these materials have been posted.

**Evaluation of Conference.**

Evaluation of the conference by delegates to the conference was determined by voluntary questionnaire provided at the end of the conference. The conference delegates were a generous but small group and clearly valued an opportunity to meet together:
“Well done on organising a content-rich and relevant conference. It was a great launch of the program to educate us on. The program and tools, so we can advocate ClinTeach to our peers and students. Workshop demonstrated that clinical supervisor feedback HAS BEEN incorporated and taken seriously.”

And further

“I felt this was one beginning of a more complicated conversation. I felt this was just a beginning or an introduction to the field of pedagogy.”

DISCUSSION AND CONCLUSIONS

The project demonstrated good methodological congruence to addressing the educational development needs of clinical educators. Their needs were explored and identified and used to frame an educational strategy that might best support delivery of their development. The purposiveness of the project was to authentically place the educators as the focus of the project and using qualitative methodology to directly harvest clinical educator reaction and outcome to shape future development. A situational needs analysis provided the basis for the website and conference. Evaluation of both was carried out. Enhanced access and engagement of supervisors to previously unavailable support from the university sector in clinical training, curriculum resources and supervision techniques was achieved. The project also provided contribution to the elaboration and facilitation of interprofessional practice by clinical supervisors in the new collaboration between the faculties of Dentistry and Health Sciences. The conference served to increase connectivity of clinical supervisors to each other across regional and rural clinical centres, due to the availability of access to elearning modules, and the constructive use of social media, on line forums and teleconferencing. Feedback from Clinical Educators to the conference, was almost universally enthusiastic, that the project was a strong achievement with good impact amongst them in terms of enhancing their capacity and competency and connectivity in an interprofessional way. Lessons learned included the challenge of website administration

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