The Australian Clinical Education Program—an interprofessional rural on-line program to educationally prepare health professionals as clinical educators

A Leversha[1,2], L Dalton[3], K Galbraith[1]

[1]Faculty of Pharmacy and Pharmaceutical Sciences, Monash University, [2]Faculty of Medicine, Nursing and Health Sciences, Monash University, [3]School of Nursing, University of Tasmania

Introduction

Providing undergraduate health students with a successful rural clinical experience is largely dependent upon the ability of local practitioners to support and facilitate student learning through effective clinical education. The Faculty of Health Science Schools in universities often lacks the capacity to prepare and support rural and remote clinicians to act as clinical educators. The Australian Clinical Education Program offers a unified national approach to this difficulty. Appropriate preparation and support for rural and remote clinicians who act as clinical educators is critical to support rural health initiatives that focus on recruitment and retention of health professionals in rural and remote Australia. In 2001 the Australian Consortium for the Education of Preceptors (ACEP) identified the need for such a program, so they developed and trialled it for pharmacists. In 2007, Rural Health Support Education and Training (RHSET) funding was used to redevelop this program and make it applicable for clinical educators from a range of health professions. The new online interprofessional clinical education program consists of six modules. This article describes the development of the program and provides a summary of the results from the evaluation.

Background

The project team recognised that well prepared preceptors and clinical educators are fundamental to optimal undergraduate and graduate learning experience, and contribute to the success of rural health initiatives such as recruitment. The literature strongly dispels the assumption that expert clinicians automatically make expert teachers, and is rich with recommendations that clinical educators have access to educational development and support[1,2,3,4,5, 6].

The Australian Clinical Education Program is designed to better prepare clinical educators. It has been carried out through a consortium; a collaborative partnership, comprising staff of schools across five Australian Universities. The consortium had successfully developed and trialled a clinical educators training program for pharmacists[7] but also noted that current models of education were moving beyond mono-disciplinary pedagogical approaches toward interprofessional frameworks of pedagogy and delivery[8]. The consortium consequently embarked on several important steps to develop the Australian Clinical Education Program. These included:

1) review of the original clinical education program for pharmacists

2) review of literature relevant to the preparation of clinical educators;

3) expansion of the pharmacy format to other disciplines with integration of evidence from the literature review into the program.

The review of the original pharmacy program identified content that

- may be applicable to other clinical educators from other health disciplines
- needed to be updated
- needed further clarity and/or expansion.

It was therefore necessary to find ways to prepare actual or intending clinical educators to develop either new or existing skills and knowledge, since preparation for the role of preceptor and clinical supervisor has been established to be a critical factor to the success of clinical placements[10]. Fehm[11] describes "preparation for the role of preceptorship [clinical supervision] as being the single most important factor related to the success of the program". Preceptorship and clinical supervision in health care settings is characterised by variability, unpredictability and the overriding service needs of the patient population[12, 13]. Evaluation of the Australian Pharmacy Preceptor Education (APPE) program showed that preceptors and clinical supervisors require one which allows them to fulfil these roles with confidence and enthusiasm as well as one that helps them to develop knowledge and skills germane to the role. As Bain[14] notes 'without adequate knowledge and preparation preceptorship programs are in danger of becoming condensed orientation programs or crash courses in survival'. The review of the APPE program examined content, terminology, structure, learning outcomes, assessment and evaluation criteria.

The starting premise for the literature review was the availability of sufficient, passionate and knowledgeable health professionals from a range of different health disciplines to act as clinical educators, which was of central importance to developing the well-prepared and committed health professionals of the future [9]. The literature review focused on identifying information crucial for the preparation of clinical educators, the importance of their role, and this informed the program development.

The findings from both the review of the original pharmacy program and the literature review were synthesised as a new approach and incorporated into the new Australian Clinical Educator Program. During this period of program development the consortium worked in consultation with key stakeholders and an expert advisory group, which included representatives of rural interest groups of national allied health professional associations, university schools and the Australian Rural Health Education Network.

Program features

The Program uses online delivery and addresses two main issues facing rural health practitioners. Firstly, it acts on the challenges that are widely recognised for the rural and remote health workforce who wish to access professional development opportunities that are both evidence-based and interactive. Secondly, it makes available a comprehensive, flexible and user-friendly solution for health professionals to develop their perception and grasp of strategies for facilitating teaching and learning in the clinical context.

Underpinning the Program's development was recognition that many of the key concepts of clinical education are common to all health professions. The Program uses examples, activities and images that depict a range of health professions but the core content remains generic. The application of core content to a specific profession occurs during the interactive exercises and is driven by the learner.

The Program's unique structure also allows for such aspects as the participants':

- individual learning outcomes
- individual interests or needs
- available time.

The Program uses a two-tier model of instruction in which health professionals are provided with progress monitoring tools for making decisions about the depth of information they require to meet their individual learning needs. The first tier of the Program features a core education program which is presented in a series of six stand-alone modules. Each module includes educational content tailored to the aim and objectives of the module, self assessment activities, notice-boards and discussion-boards (which includes a moderator option). A brief overview of each module is presented in table 1.The second tier of the Program allows health professionals to access more comprehensive sections of the modules which deal with each topic in greater depth.

Table 1   Overview of modules

Module	Title	Description of the module
1	Exploring Clinical Education—the theory and the practice	It considers the: • various roles of a clinical educator, • reasons for taking on the role, • associated benefits, • importance of clinical education in developing professional competence.
2	Focus on Learning	It concentrates on: • learning and the learner i.e. the student or new graduate practitioner, • discussion of the principles of learning, • domains: knowledge, skills and attitudes, • different learning styles, the outcomes of learning, and the impact these might have.
3	Focus on Being a Clinical Educator	It is concerned with the: • role of the individual practitioner as a clinical educator, • personal factors which impact on the role, • managing different phases of clinical placement
4	The Leaner—Clinical Educator Relationship	It focuses on: • developing a positive relationship between the learner and the clinical educator, • exploring individual differences (eg gender & culture) • applying a problem solving approach to potential learner-clinical educator difficulties
5	Learning in the Workplace	It addresses and discusses: • the ways in which learners come to know, comprehend and act on the link between theory and practice in a specific workplace setting, • social learning theory as applied to clinical education, • workplace issues with legal and ethical implications, • looking after yourself and avoiding burnout.
6	Mentoring	It examines the process and benefits of: • mentoring • understanding the differences between the roles of mentor and clinical educator

A further characteristic of the program is the use of principles of adult learning and e-learning. Through its introduction it was possible to include localised support material for the participants. This is designed to include course specific information outlining the requirements of the School or Faculty from which the health professional is accepting students. To address potential problems with downloading the material from the internet, a CD is provided which is additional to access to the web based program. Individuals can opt to complete the program independently or they may become part of a group whose learning is facilitated by a trained moderator.

The program was critically reviewed by an Expert Advisory Group. A three state pilot program was initiated and it targeted allied health professionals in rural and remote locations who received students from the consortium universities.

The program has the capacity to:

- meet a variety of learning needs,

- suit self-paced learning,

- be regularly updated.

Methodology used in the Program trial

The program trial involved the recruitment of one hundred participants who were recruited through the use of available data by the consortium and professional organisations. These participants were given eight weeks to complete the program. The participants were randomly allocated to a group with or without a moderator to assess whether or not the moderator made a difference to participants learning outcomes. Pre and post program questionnaires were developed to test participants' knowledge, skills and attitudes. These questions were developed for the participants to identify their strengths and weaknesses as a preceptor. The questions were also aimed at identifying their roles as a preceptor, and strategies used to fulfil this role. Both questionnaires were a combination of direct, using a likert scale of 1 to 7, open ended, and a few multiple choice questions. The post program questionnaire repeated a number of the pre program questions, and included additional questions about the program structure and usability. The questionnaires were completed and submitted online. The second step involved organisation of two focus groups-one for moderators and one for participants. All four moderators initially agreed to participate, however when only two moderators participated on the actual day the data was treated as a paired interview rather than a focus group. The operation of both focus groups, via a teleconference, was assisted by an external facilitator who specialises in focus group research.

Following the completion of the Program or a period of eight weeks, whichever came first, participants were asked to complete the post program questionnaire. In line with ethical clearance requirements, the researchers relied on third parties to contact participants as a follow-up to the post intervention survey. Although ethical concerns about approaching participants directly by researchers were avoided, from a research design perspective this method was challenging. While online moderators had contact with the people within the groups, the un-moderated groups were difficult to contact.

Results from the Program trial

Those involved in the trial of the Program represented a wide range of allied health professions. Participants were from physiotherapy, occupational therapy, speech therapy, radiography and radiation technology, nutrition and dietetics and orthotics. They worked in a range of areas, with 37% from hospital and 34 % from community and health services; and there were participants from all states and the Northern Territory. Working as a sole practitioner was reported by 9% of the participants. One hundred participants completed the pre program questionnaire and 23 completed the post program questionnaire. In the pre program questionnaire, other than the background data, the other questions were answered at least 89% of the time.

Age of the participants

Those taking part in the group represented a wide range of ages of allied health professions, however more than 50 per cent of the group were in the 20-30 years age category (refer figure 1).

Figure 1   Age of participants
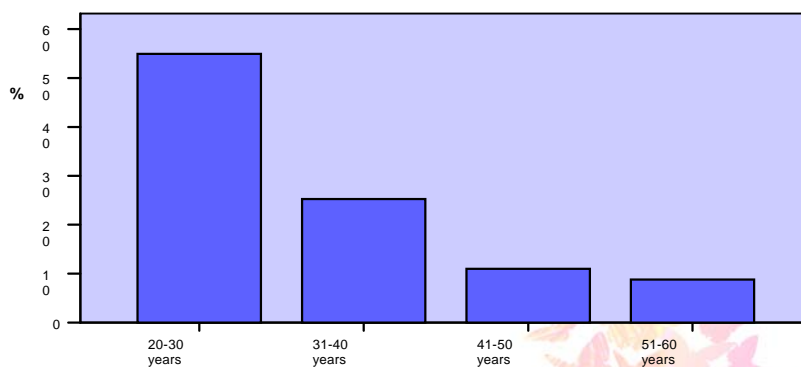
Years working as an allied health professional

The participants represented a wide range of years working as an allied health professional, with approximately 10 per cent having been an allied health professional for between 26 and 35 years, however 50 per cent of the group were in the 0-5 years category (refer figure 2).

Figure 2   Years working as an allied health professional
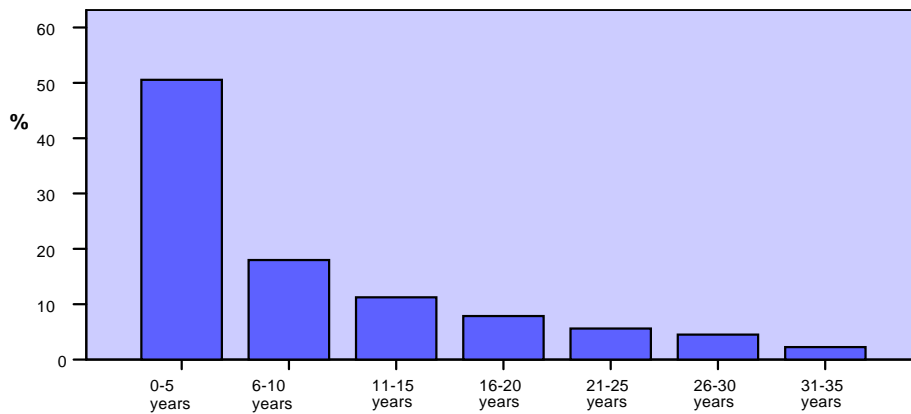
Years as a clinical educator

The group represented a wide range of years as a clinical educator, with approximately 10 per cent having been a clinical educator for between 26 and more than 40 years, however nearly 60 per cent of the group were in the 0-5 years category (refer figure 3).

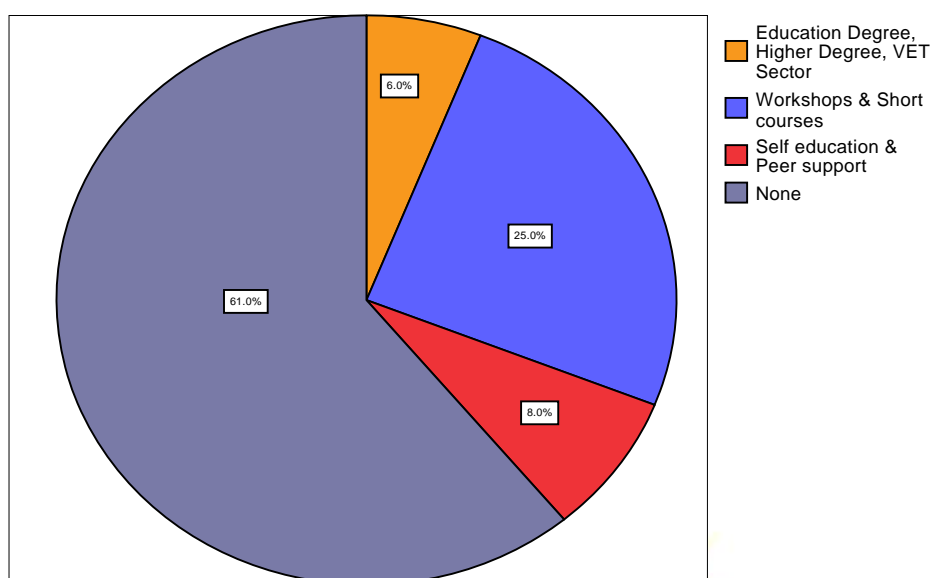**Figure 3   Years as a clinical educator**
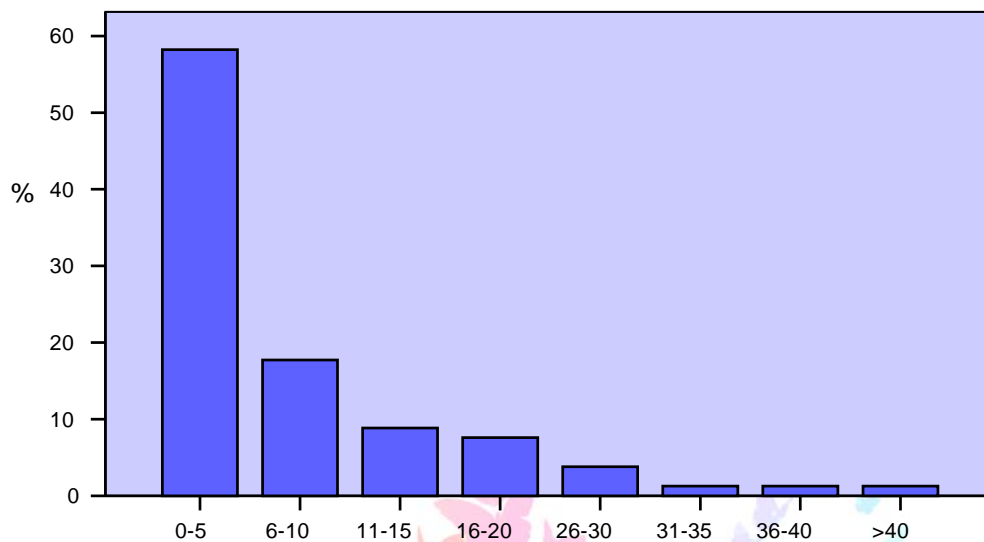
Clinical education preparation

Given the number of health professionals reporting that they had a clinical educator role it was surprising that less than half of the participants (45%) reported not having undertaken any form of clinical educator preparation. Some previous preparation was reported by 55% of health professionals fulfilling the role as a clinical educator. Where participants did report previous preparation, the results indicated a significant range of courses or methods for equipping themselves for the role. These were three categories:

- education degree, higher degree or VET sector including all tertiary level training

- workshops and short courses including university run training days and short courses within undergraduate degrees

- self-education and peer support including professional development on assessment tools, credentialing programs, meeting with colleagues and reading books.

An overview of previous clinical education preparation of participants is presented in figure 4.

Figure 4   Clinical education preparation

Legend:
- Education Degree, Higher Degree, VET Sector
- Workshops & Short courses
- Self education & Peer support
- None

Pie chart values: 6.0%, 25.0%, 8.0%, 61.0%

Findings from the pre and post program questionnaires

There was considerable data collected in the pre and post questionnaires. The discussion in this paper draws on a few of the results.

The information presented for the pre-program questionnaire and the post program questionnaire cannot be compared because the respondents to the post program questionnaire could not be paired.

Both questionnaires dealt with the main areas of knowledge, skills and attitudes of the respondents and investigated the strengths, weaknesses, roles and strategies of the clinical educator. The main strengths in terms of skills identified by the participants when asked about their own experience as a clinical educator, were the same in both questionnaires. They were:

- teaching ability

- communication.

Interestingly the main weakness in terms of skills was also identified as communication. This was highlighted as well as:

- time constraints

- the need for the program to have a moderator to improve its interactivity.

The main roles of the clinical educator were identified as:

- providing a suitable learning environment
- facilitating learning opportunities
- supporting and mentoring.

In some post-program questionnaires there was more emphasis on the role of the clinical educator as a teacher. For example of one respondent stated, 'clarify knowledge that you and the learner are working towards achieving by making a clear plan with goals and expectations'.

The strategies for developing a positive relationship between the learner and the clinical educator were generally viewed as being similar prior to and post completion of the program. However, the post program questionnaire results highlighted one strategy for bringing about attitudinal change, and that was the need for the clinical educator to be explicit about expectations and goals for the learner at their placement.

After completing the program the clinical educators reported an improvement in two personal characteristics: their level of confidence and preparedness for dealing with students. . They also reported a clear understanding of the similarities and differences between the roles of a clinical educator and mentor.

Some suggestions for improving the information technology of the program were acted upon as they arose during the trial period. For example participants observed that the cursor did not appear at the correct location, and the scrolling was frustratingly slow.

Participants also felt that:

- a moderator would improve the interactivity of the program
- longer time-frames for completion of the modules were required
- set due dates for modules were also required.

Findings from focus groups

The focus groups provided further insight to the strengths and weaknesses of the program. The feedback was mostly positive with participants and moderators recognising the importance of a program to prepare clinical educators. They found the course relevant to their professions and it raised a range of issues that they had previously not considered. Participants enjoyed the practical aspects of the program. This gave them options to study the standard program, or investigate topics in more depth. The ability to select material and activities on an individual needs basis was also considered to be a strength of the program. The organisation of the website and the way the site looked was also considered in a positive light. The major problem area reported was the lack of interaction on the discussion boards which indicated a strong need for an online moderator.

A selection of comments by focus group participants:

It was a very thorough program. It also provided lots of references so was evidence based. It was good being able to do a program that was really thorough in my own time.

Was really good to have a structured program which encouraged shared discussions—really made you think prior to responding to questions.

It may be that to have had a moderator to guide discussion may have actually made this occur.

So for us clinicians who are rural this is just like offering us cake … I think it helped me a lot as a clinical educator…

Discussion

Some interesting comparisons can be made between the pre-program and post-program questionnaires.

In the pre-program questionnaire respondents placed less emphasis on actual teaching and more emphasis on:

- the clinical educator facilitating student's learning

- providing a clinical environment in which they could learn.

In the post-program questionnaire respondents appeared to use more formal language including the terminology for roles which are presented in the modules, e.g. "manager", "counsellor", and "instructor". There also seemed to be a greater appreciation of the importance of setting clear goals and expectations, and being prepared for the start of a new placement.

In the post program questionnaire, the frequency of responses which indicated that there was a need for more emphasis on the role of clinical educator as a teacher were too small to make any firm conclusions. However, the results allow a tentative conclusion that the program has a positive effect on participants' skills, knowledge and attitudes as clinical educators. The results indicate that the program did achieve a significant positive shift in confidence and feelings of preparedness. Overall participants found the program supported their learning needs and was provided in an accessible manner. Minor suggestions were made to improve the delivery platform and its interactive functionality.

The inclusion of a moderator was identified as being useful to improve the interactivity of the program. Supporting this view was the group with no moderator, which made the comment "that having moderator to guide the discussion would have improved the program".

It is not known if the participants who responded to the questionnaires represent the population of clinical educators in the disciplines listed in the results section. The reasons for the poor response rate to the post-program questionnaire are unknown.

One significant strength of the program is it enables the development and provision of accessible professional development for rurally located clinicians who then act as clinical educators. By doing so, the Australian Clinical Education Program follows a rationale that uses information and communications technology to bridge disciplinary boundaries, which is hoped will lead to strengthened local networks of practitioners across all geographical locations.

Conclusions

The program enables the development and provision of accessible professional development for rurally located clinicians who act as clinical educators. It strengthens local networks of practitioners and uses a scaffold of information and communications technology to bridge disciplinary boundaries. Providing undergraduate health science students with a successful rural clinical experience is largely dependent upon the ability of local practitioners to support and facilitate student learning through effective clinical education. Preparing and supporting rural and remote clinicians to achieve this role has been challenging. This online interdisciplinary clinical educator Program provides a comprehensive, flexible and user-friendly solution. It was developed from a well established program, and draws from a solid evidence base. It has the capacity to meet a variety of learning needs, be well suited to self-paced learning and regular updating. Initial analysis indicates that the Program did make a positive difference to the clinical educators' feelings of confidence and preparedness. It also gave recognition to significant features of a good clinical educator practice.

Acknowledgment

References

1.   Shamien J, Inhaber R. The concept and practice of preceptorship in contemporary nursing: a review of pertinent literature. Int J Nurs Stud 1985;22(2):79-88.

2.   Zerbe M, Lachat M. Three-tiered team model for undergraduate preceptor programs. Nurs Educ 1991;16(2):18-21.

3.   Miflin B, Price D. Rural doctors are naturally effective teachers. AJRH 1993;2:21-28.

4.   Atkins S, Williams A. Registered nurses' experiences of mentoring undergraduate nursing students. J Adv Nurs 1995;21(5):1006-1015.

5.   Myrick F. Preceptorship—is it the answer to the problems in clinical teaching? J Nurs Educ 1988;33(9):411- 416.

6.   Pereira R. Learning and being a first time student supervisor. AJRH 2008; 16:247-248.

7.   Dalton L, Bull R, Taylor S, Galbraith K, Marriott J, Howarth, H. Evaluation of the national pharmacy preceptor education program AJRH 2007;15:159-65.

8.   Nisbet G, Thistlethwaite J, Chesters J, Jones M, Moran M, Murphy K et al. Sharing a vision for collaborative practice: the formation of an Australasian interprofessional practice & education network (AIPPEN). FoHPE 2007; 8(3): 1-7.

9.   Charleston R, Goodwin V. Effective collaboration enhances rural preceptorship training. Int J Mental Health Nurs 2004; 13(4):225-31.

10.   Usher U, Nolan C, Reser P, Owens J, Tollefson J. An exploration of the preceptor role: preceptors' perceptions of benefits, rewards, supports and commitment to the preceptor role. J Adv Nurs 1999; 29(2):506-14.

11.   Fehm PD. The road map to a meaningful nurse preceptorship program. Nurs Health Care 1990; 41-2365:45-7.

12.   Irby DM. Teaching and learning in ambulatory care settings: a thematic review of the literature. Acad Med 1995; 3:S15-25.

13.   Laidley T, Braddock C. Role of adult learning theory in evaluating and designing strategies for teaching residents in ambulatory settings. Adv Health Sci Education 2000; 5:43-54.

14.   Bain L. Preceptorship: a review of the literature. J Adv Nurs 1996; 24:105-7.

Presenter

Anne Leversha is a Senior Clinical Lecturer at Monash University Faculty of Pharmacy and Pharmaceutical Sciences, a Senior Lecturer at Monash University Faculty of Medicine, Nursing and Health Sciences, and the Director of Pharmacy at Latrobe Regional Hospital in Traralgon. Anne is a Fellow of the Society of Hospital Pharmacists, a member of the Victorian Medicines Advisory Committee, and a recipient of the Victorian Healthcare Association's Rural Health Professionals Award.