ANZAME 2007

The association for health professional education

Linking Learners and Leaders

12–15 September 2007 **Canberra**

Contents

ISBN 0 9577969 8 6

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Welcome

Dear Colleagues,

Welcome to the 2007 Annual Conference of ANZAME—the Association for Health Professional Education. We are delighted to see so many familiar faces and also many new faces who are joining us here in Canberra.

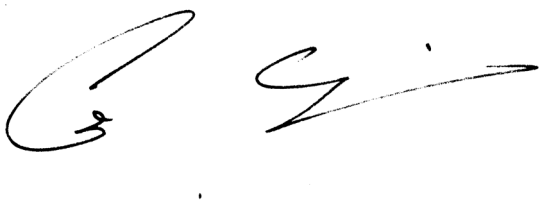
We have accepted abstracts for 104 small group oral presentations, 40 PErsonally ARranged Learning Sessions (PeArLS), 11 workshops (pre and post conference) and 20 electronic posters. We have introduced a new presentation type in the form of electronic posters. This 'all-welcome' session is designed to provide a more active format for poster presentations, whilst creating an atmosphere conducive to conversation and mingling (dare I say linking learners and leaders). Please come along on Thursday evening and enjoy each others' good company, interesting research and ideas and partake of the fine food and beverage.

We recognise that networking is an important component of any conference and have set aside open spaces in the Hyatt for you to share and enjoy each others' company. The conference dinner is to be held in the foyer of the High Court building, a comfortable walk from the conference venue. The dinner presents another opportunity to catch up with old friends, make new ones and to continue the theme of linking learners and leaders.

This event could not have been possible without the very hard work of many dedicated and hard-working individuals. The Local Organising Committee—consisting of Ashley Watson, Cathy Owen, Fran Everingham, Gabrielle Cooper, Gordon Waddington, Graham Reynolds, Joy Vickerstaff, Karen Murphy, Kathy Korsch, Mary-Ann Ryall, Peter Camilleri, Ruth Foxwell, Sarah Stephens and Suzy Cunningham—has done a superb job in planning and preparing for this meeting. All members of the Committee acted as the Technical Committee and with an oversubscribed conference did a magnificent job. I would like to thank our sponsors, whose generous support has made this event possible. I would also like to recognise our event planners, Conference Logistics, and all their staff who have been so responsive to our needs, so helpful and encouraging and who have done such a wonderful job. Finally I wish to acknowledge with much appreciation the staff of the Hyatt Hotel Canberra, especially Manal Refki for her dedication to this meeting.

Canberra in Spring is a wonderful place to be. Please find the time to explore Floriade, the gentle warmth of the season and the magnificent lake shores and parks.

We look forward to an exciting, interesting and convivial conference, which will reach out to all of our colleagues in health professional education.



Gerry Corrigan
for the Conference Organising Committee

Organising Committee

- Cathy Owen, Australian National University, Joint Chair
- Gerry Corrigan, Australian National University, Joint Chair
- Ros Bauer, Greater Southern Area Health Service
- Peter Camilleri, Australian Catholic University
- Gabrielle Cooper, University of Canberra
- Fran Everingham, University of Sydney
- Ruth Foxwell, University of Canberra
- Kathy Korsch, Canberra Institute of Technology
- Karen Murphy, ACT Health
- Peter Pinnington, Australian National University
- Graham Reynolds, The Canberra Hospital
- Mary-Ann Ryall, ACT Health
- Sarah Stephens, Australian National University
- Joy Vickerstaff, ACT Health
- Gordon Waddington, University of Canberra
- Ashley Watson, Australian National University
- Suzy Cunningham, Conference Logistics

General information

Venue

Hyatt Hotel Canberra
Commonwealth Avenue
Yarralumla ACT

02 6270 1234 [ph]
02 6281 5998 [fx]

All conference plenary sessions will be held in the Federation Ballroom, with concurrent sessions in the Assembly, Murrumbidgee, Mt Ainslie, Black Mountain, Centenary One, Centenary Two and Centenary Centre Rooms. Please refer to the plan on page 8 of this handbook.

Registration location and hours

The registration desk will be located outside the Black Mountain (Canberra) Room of the Hyatt Hotel and will be open as follows:

Thursday 13 September	0800–1900
Friday 14 September	0830–1730
Saturday 15 September	0900–1400

Staff at the registration desk will be able to assist you with any queries you may have relating to your registration, accommodation and social function bookings.

Conference contact numbers

02 6249 1411 [ph]
02 6230 5791 [fx]

Name badges

All delegates and speakers will be provided with a name badge that should be worn at all times within the venue. Entry to the conference sessions will be permitted only to delegates wearing a name badge. If you misplace or forget your name badge please see staff at the registration desk for a replacement.

Catering

Morning and afternoon teas and lunches will be served in the exhibition areas—the Gallery and Atrium of the Hyatt Hotel. If you have told us of any special dietary requirements, we have passed this information on to the caterers. Please make yourself known to the hotel staff at meal times.

Dress code

Dress code for the conference and social functions is business attire/neat casual.

Useful telephone numbers

Qantas	13 13 13
VirginBlue	13 67 89
Jetstar	13 15 38
Canberra Cabs	13 22 27
Action Buses	13 17 10

See **www.action.act.gov.au/routes.cfm** for bus timetables.

Mobile phones

As a courtesy to other delegates, please ensure your mobile phone is turned off or in silent mode during all sessions and social functions.

Presenters information

The speakers' preparation room will be located at the far end of the Gallery in the Hyatt Hotel. Presenters should deliver their PowerPoint presentation to the audiovisual technician on arrival at the conference. All PowerPoint presentations will be pre-loaded onto the laptop computers for each room by the technician and you should check your presentation prior to your session.

All presenters are asked to meet with their session chair at the front of the presentation room fifteen minutes prior to the session.

Session chairs have been asked to keep strictly to time to enable delegates to move between sessions if desired.

ePosters

ePosters will be set up in the Gallery during the ePosters and cocktails session from 6 to 7 pm on Thursday evening. Authors are asked to stand by their laptops to show their poster slides and to answer questions. There will be further opportunities to view ePosters as they will be shown on the main screen in the Federation Ballroom during breaks on Friday and Saturday.

Accommodation contact numbers

Hyatt Hotel Canberra

Commonwealth Avenue
Yarralumla ACT 2600
02 6270 1234 [ph]
02 6281 5998 [fx]

Brassey Hotel Canberra

Cnr Belmore Gardens and Macquarie Street
Barton ACT 2600
02 6273 3766 [ph]
02 6273 2791 [fx]

Rydges Lakeside Hotel

London Circuit
Canberra ACT 2600
02 6247 6244 [ph]
02 6247 3679 [fx]

Waldorf Apartment Hotel

2 Akuna Street
Canberra City ACT 2600
02 6229 1234 [ph]
02 6229 1235 [fx]

Social program

EPosters and Welcome Cocktails

1730–1900
Thursday 13 September
Hyatt Hotel Canberra

Conference Dinner

1930–2230
Friday 14 September
The High Court of Australia

Shuttle buses will collect delegates from the conference hotels commencing at 1910. Please be ready five minutes prior. Buses will leave promptly and delegates who miss the bus will need to make their own arrangements.

Bus One

1910 Depart Waldorf Apartments, Akuna Street
1920 Depart Brassey Hotel, rear of Brassey, Macquarie Street

Bus Two

1910 Depart Rydges Lakeside, Edinburgh Street
1920 Depart Hyatt Hotel, Banquet (rear) entrance

Buses will return to the hotels at 2230.

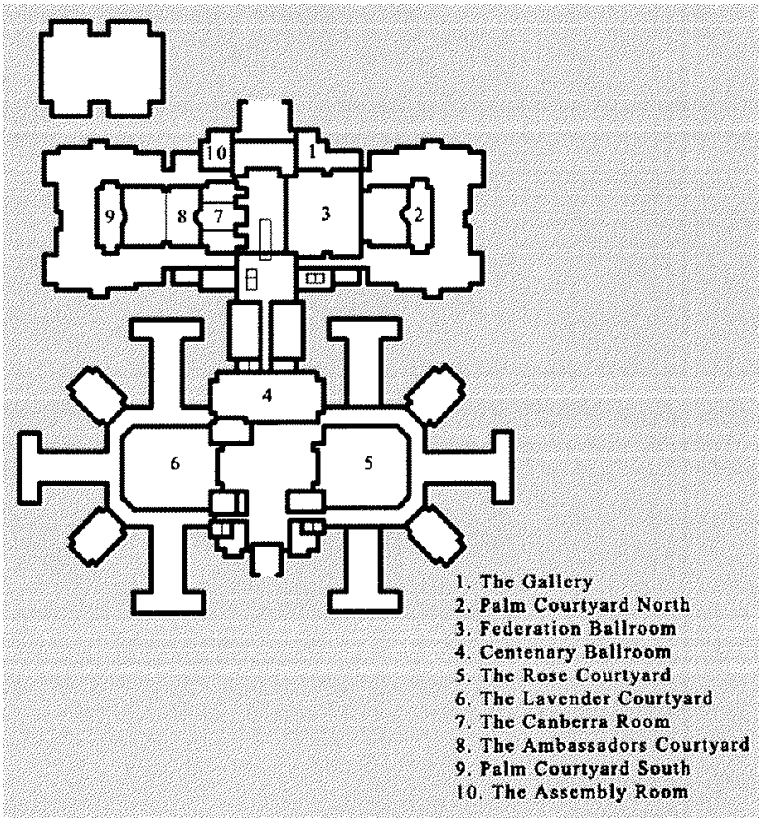
Conference Secretariat

Conference Logistics
PO Box 6150
Kingston ACT 2604

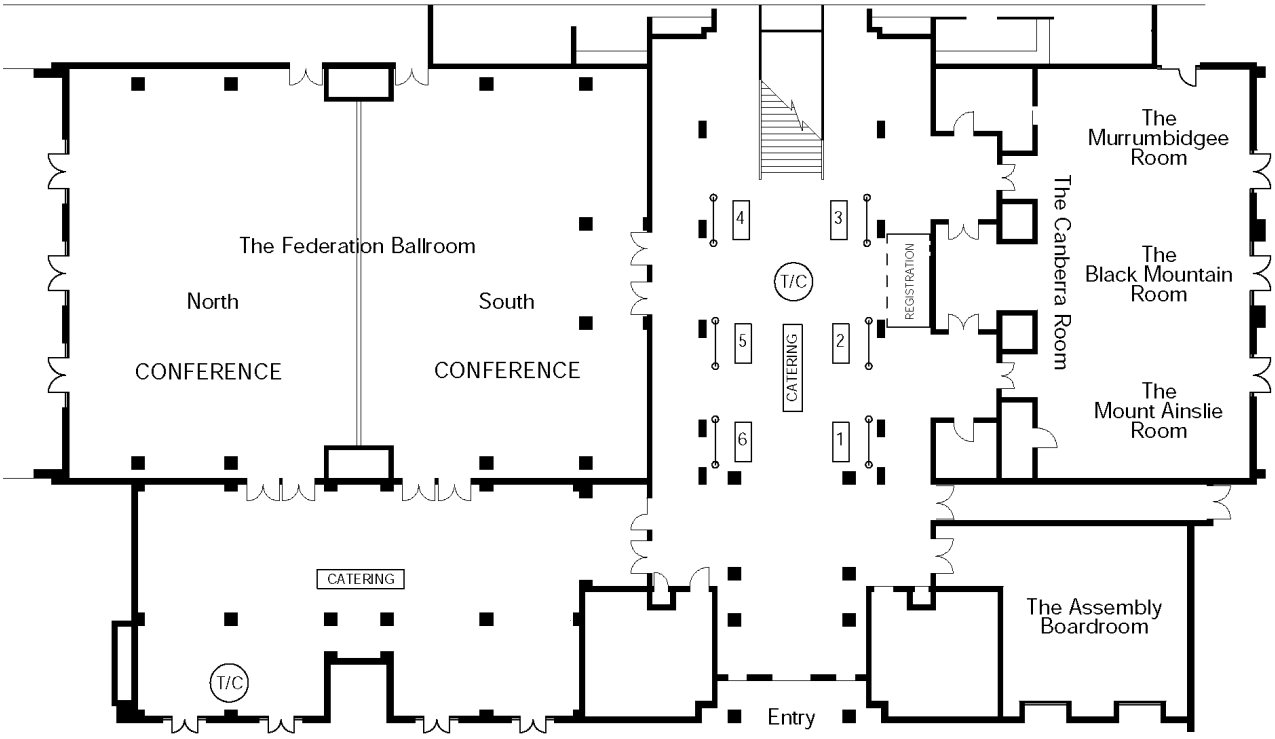
02 6281 6624 [ph]
02 6285 1336 [fx]
conference@conlog.com.au
www.conlog.com.au/anzame

Floorplans

Hotel floorplan



Venue floorplan



Pre-conference workshops

Wednesday 12 September 2007			
9.00–10.30	1	Does clinical education teach you to think? Applying 21st century science to self-aware clinical practice —**Ken Cox**, University of New South Wales	The Canberra Hospital, Building 5, Clinical tutorial rooms 1 and 2
9.00–12.00	2	Enabled observation: enhancing interdisciplinary health students' empathic understanding using the visual arts —**Jo Gibson**, **Rebecca Vanderheide**, University of Canberra, **Pamela Clelland Gray**, The National Portrait Gallery of Australia, **Tim Metcalf**, Poet and Rural GP	Foyer National Portrait Gallery of Australia, Old Parliament House
10.00–12.00	3	Experiencing the multiple mini interview (the MMI) —**Cathy Owen**, **Gerry Corrigan**, Medical Education Unit ANU, **Christopher Roberts**, CIPHER University of Sydney	Peter Baume Building 42A Linnaeus Way ANU, Bambi Seminar Room
10.30–12.00	4	Portfolios for learning and assessment: working through some current controversies —**Charlotte E Rees**, The University of Sydney, **J Nicky Hudson**, The University of Wollongong	The Canberra Hospital Building 5 Clinical tutorial rooms 1 and 2
1.00–4.00	5	Clinical skills in ANZ medical schools —**Ashley Watson**, ANU Medical School	The Canberra Hospital Building 5 Clinical tutorial rooms 1 and 2
1.00–5.00	6	Enhancing research —**David Prideaux**, Flinders University, **Gerry Corrigan**, Australian National University	WK Hancock Library, Flexible Learning Studio, Sullivans Creek Road, Australian National University

Workshop 1

Does clinical education teach you to think? Applying 21st century science to self-aware clinical practice

Ken Cox, University of New South Wales

Gaps in clinical education

Incomplete clinical education permits errors in clinical performance that harm patients.

- One in seven hospital admissions suffers an adverse event. Behavioural research into preventing flaws in health care is minimal. Performance 'on the job' may be unsupervised. Trained mentors may be absent.
- Outside hospital practice, adverse events are rarely recorded, analysed, or followed up.
- The pass rate is usually 50%; but after graduation no action is taken to re-educate the missing 50%.
- After health professionals complete graduate training, their clinical practice is unsupervised.
- Clinicians often assume their practical thinking and action are scientific! The processes of complex judgments, trade-offs and prudent decisions are not justified, documented or researched!

Studying yourself thinking 'on the job'

The interactive, interpersonal events of health care are unsupervised after completion of training. Only you know what goes through your mind with each patient as you work out what's wrong, and what facts and factors influence the judgments and decisions you and the patient make on what to do.

Every clinician can learn from introspective self-study of their 'thinking on the run', plus thoughtful reflection on what happened in each case. Each health professional can become a self-aware participant-observer (SAPO) of their judgments, decisions and performance in their own practice. The educational target for ensuring error-free performance is conscientious, prudent clinical thinking about actions.

But few health professionals understand the mechanisms of how their own clinical mind operates! Mind mechanisms reveal how experience and explanation collate case memory and devise shrewd working knowledge. Their joint experiential cognition feeds into executive working memory's reasoning,

micro-judgements, choices, decisions and plans on what actions to take.

Working memory has limited capacity, and adapts by various devices such as 'chunking' data, and *satisficing* on 'What's enough evidence?' to permit crossing the diagnostic threshold to take action. Information overload stresses working intelligence in its handling many variables at once.

The workshop will display some mechanisms of clinical thinking for practical action. What follows jumps out of participants' mind as questions, ideas or insights. The goal is to stimulate the curiosity of solo clinicians in exploring 'how minds work' in applied health care. Useful teaching tools are thinking aloud at the bedside, guiding 'the feel of things', and 'work talk'. The focus for all is 'What do you think?'

Workshop 2

Enabled observation: enhancing interdisciplinary health students' empathic understanding using the visual arts

Jo Gibson, **Rebecca Vanderheide**, University of Canberra, **Pamela Clelland Gray**, The National Portrait Gallery of Australia, **Tim Metcalf**, Poet and Rural GP

'The way we see things is affected by what we know or what we believe.' (John Berger, 1972)

This workshop is designed with an empathic person centred approach to develop health care students' subjective understanding of human experience by using the visual arts as a medium of discovery. The origins of this workshop are from a program 'Observation through Art' which was collaboratively developed by a nursing lecturer at the University of Canberra and an art historian from the National Portrait Gallery of Australia. This well received program was expanded with the collaboration of a colleague to include interdisciplinary health care students. This workshop will also add a further dimension by including the use of narrative to facilitate the learning experience.

The aim of this workshop is twofold:

- to facilitate aesthetic knowing through an exploration of the human condition utilising the humanities. This will be compared and contrasted to the dominant pathophysiological paradigm in contemporary health care to which health care students are exposed in the clinical learning environment
- to create a unique space outside the expected learning environment where health care students' are stimulated to reflect on different ways of seeing both the patient and each other.

The arts, such as music, dance and visual art are being increasingly integrated into health care practice as part of a holistic approach to manage alterations in health status (Hodges et al, 2001). There is also a place for the arts in the education of health care professionals where experiential opportunities may be used to unlock other ways of 'knowing' about caring for individuals and their families (Evans, 2002).

Visual art is the centrepiece of the humanities. A visual image represents abstract ideas and can evoke in depth conversations about experiences of life, death and illness. The face provides pre eminent expression of emotion and character in states of health and disease. Through engagement and dialogue about observations of selected portraits, students gain confidence in articulating, reflecting upon and categorising their subjective observations. It is hoped that by developing humanistic skills to bridge the gap left by purely objective empirical observation skills, students will become more holistic in their approach by becoming increasingly aware of the complexity of a patients experience of health and illness.

There is an increasing emphasis on the need for health care delivery that is more integrated, where health professionals have an understanding of their colleagues' knowledge and skills to work effectively with them in teams (Gilbert et al, 2000). However, educational experiences and the socialisation of different health care professionals tend to reinforce 'professional cultural silos' (Hall, 2005). Experiential learning is one form of interdisciplinary education that affords students opportunities to learn together in meaningful ways. Facilitation of this learning activity in the art museum allows the learning to be taken out of the context of the health care environment. The environment allows students to suspend quick judgements and engage with who they are as people, unencumbered by their prevailing professional cultures and dominant ways of thinking and being of the clinical setting. In suspending the quick judgment, there is an opportunity to examine that judgment in order to decide whether to trust and validate the assessment or not.

Resources and participant groups

This workshop will take place in The National Portrait Gallery of Australia during the afternoon. It is envisioned that two groups, of no more than 10–15 participants each, will be involved. The first group would be open to pre professional health care students only (this group could be expanded to 15 participants)

and the second to educators (limited to 10) interested in incorporating art in their teaching.

References

Berger J (1972) *Ways of Seeing*. Penguin, London.

Evans M (2002) Reflections on the humanities in medical education. *Medical Education,* 36**,** 508–513.

Gilbert JH, Camp RD, Cole CD, Bruce C, Fielding DW & Stanton SJ (2000) Preparing students for interprofessional teamwork in health care. *Journal of Interprofessional Care*, 14, 3, 223–235.

Hodges H, Keeley A & Grier E (2001) Masterworks of art and chronic illness experiences in the elderly. *Journal of Advanced Nursing***,** 36, 3, 389–398.

Wilkstrom BM (2000) Nursing education at an art gallery. *Journal of Nursing Scholarship,* 32,1,197–199.

Biographies of presenters

Rebecca Vanderheide is a Lecturer and PhD candidate in the field of inter-professional learning researching interdisciplinary health care student and practitioner communication.

Jo Gibson is also a Lecturer in Nursing at the University of Canberra. Jo enjoys engaging with innovation in teaching and learning, including the use of the humanities to support the learning of health care practitioners.

Pamela Clelland Gray is Manager, Education and Public Programs at the National Portrait Gallery, Canberra, Pamela has, since the foundation of the NPG in 1994 played a significant role in establishing that institution's public and education program. She is currently undertaking doctoral research at the University of Melbourne on the integrity of aesthetic education in the practice of the public art gallery.

Dr Tim Metcalf is a poet and a general practitioner working in southern NSW. He has a passion for 'words as a healing art' particularly in the area of stress prevention for health care professionals.

Workshop 3

Experiencing the multiple mini interview (the MMI)

Cathy Owen, **Gerry Corrigan**, Medical Education Unit ANU, **Christopher Roberts**, CIPHER University of Sydney, **Merrilyn Walton**, University of Sydney

Come along to hear, consider and experience the Multiple Mini Interview. This tool is increasingly used for decision making about admissions to medical school, and replacing the traditional interview. The approach borrows from the OSCE and involves a series of brief candidate–interviewer encounters focused on skills or behaviours considered important in prospective students. The workshop will include:

- an overview of why you may be interested in using the MMI focusing on the introduction of the MMI at Sydney University as a case example with time for questions to an experienced panel of MMI users
- experiencing a hands on trial run—participants will be allocated as interviewers and candidates and then run a sample interview cycle hosted at the ANU medical school.

We will finish with a debrief of your experience over a cup of tea.

Workshop 4

Portfolios for learning and assessment: working through some current controversies

Charlotte E Rees, The University of Sydney, **J Nicky Hudson**, The University of Wollongong

Introduction

There has been increased interest in the use of medical student portfolios in recent years.[1–5] Educators have suggested that portfolios offer numerous benefits to learners such as encouraging their self-directed learning and reflective practice.[2,6] They have also argued that portfolios are authentic assessment tools[1,7], offering the potential to assess outcomes such as professionalism that are not easily assessed by other methods.[6,8] Whilst the evidence-base for portfolios is developing[5,8], a number of controversies still exist within the medical education literature and these will be discussed in this workshop.

Aims

This workshop aims to discuss some current arguments about portfolios as tools for learning and assessment. It is intended for health care educators interested in portfolios and will be particularly useful for those involved in assessing students' personal and professional development. It is hoped that the workshop will be attended by participants with varied levels of knowledge and experience of portfolios. By the end of the workshop, participants should be able to:

- define the term 'portfolio' and outline its possible contents;

- discuss the costs and benefits of 'learning' versus 'assessment' portfolios;
- describe criteria employed to assess student portfolio analyses summatively; and
- assess exemplar portfolio analyses using published criteria, comparing and contrasting their assessments with others.

Agenda

The format of this session will be a 120-minute interactive workshop. The facilitators will not present information didactically but will provide participants with handouts.

Part 1: We will begin with a brief introduction of the participants and their expectations of the workshop (20 minutes).

Part 2: We will focus on the question 'what is a portfolio?' In small groups, participants will determine their own definition for the term 'portfolio'. These will be written on flipchart paper, presented to the whole group and compared with each other and established definitions. The facilitators will then encourage discussion about what portfolios might contain (25 minutes).

Part 3: Participants will be given one argument for 'learning' and one argument for 'assessment' portfolios. They will be asked to vote for their preferred argument and will be divided into teams to discuss further arguments to support their view. They will write down their arguments on flipchart paper and present their thoughts to the whole group (25 minutes).

Part 4: Published assessment criteria will be given to participants, which they will then use to assess one portfolio analyses on their own. They will then work in pairs or threes to compare and contrast their grades and will feed back their grades to the whole group (40 minutes).

Part 5: The workshop will end with a brief Q&A session, during which the facilitators will attempt to answer any participant queries or concerns about using portfolios as tools for learning and assessment (10 minutes).

Evaluation

Participants will be requested to complete an evaluation form at the end of the workshop to elicit their views about whether the workshop activities met the specified learning outcomes.

References

1. Carraccio C, Englander R. Evaluating competence using a portfolio: a literature review and web-based application to the ACGME competencies. *Teaching and Learning in Medicine* 2004;16:381–387.
2. Davis MH et al. Portfolio assessment in medical students' final examinations. *Medical Teacher* 2001;23:357–366.
3. Driessen E et al. Use of portfolios in early undergraduate medical training. *Medical Teacher* 2003;25:18–23.
4. Gordon J. Assessing students' personal and professional development using portfolios and interviews. *Medical Education* 2003;37:335–340.
5. Rees CE et al. The utility of reflective portfolios as a method of assessing first year medical students' personal and professional development. *Reflective Practice* 2005;6:3–14.
6. Challis M. AMEE Medical Education Guide No. 11 (revised): Portfolio-based learning and assessment in medical education. *Medical Teacher* 1999;21:370–386.
7. Driessen E et al. The use of qualitative research criteria for portfolio assessment as an alternative to reliability evaluation: a case study. *Medical Education* 2005;39:214–20.
8. Friedman Ben David M et al. AMEE Medical Education Guide No. 24: portfolios as a method of student assessment. *Medical Teacher* 2001;23:535–551.
9. Rees C. The use (and abuse) of the term 'portfolio'. *Medical Education* 2005;39:436.
10. Rees C. 'Portfolio' definitions: do we need a wider debate? *Medical Education* 2005;39:1142.

Workshop 5

Clinical skills in ANZ medical schools

Ashley Watson, ANU Medical School

Aim

- To provide a forum for ANZ medical schools to present and share curriculum designs, innovations, and ideas.
- To bring together Clinical Skills staff to plan future meetings and foster collaboration.

Format

Up to six medical schools will each be allocated 15 minutes for presentations and feedback. Each presentation should last no more than 7 minutes, as follows:

- 3 minutes: Overall structure
- 2 minutes: 1 or 2 strengths
- 2 minutes: 1 or 2 weaknesses where feedback is sought

This will allow 8 minutes for feedback from the audience.

Presenters are encouraged to focus on one component of the Clinical Skills curriculum, e.g. Early or Late Years; Communication and History Taking; Physical Examination; Procedural Skills; Assessment; Online learning; etc.

All medical schools are encouraged to submit a presentation.

Workshop 6

Enhancing research

David Prideaux, Flinders University, **Gerry Corrigan**, Australian National University

What is the aim of the workshop?

To enhance and build on participants' existing medical education research skills.

Who should come along?

Anybody who wants to conduct some research in medical education no matter how small (something that interests you and your colleagues in the workplace or learning environment) or big (you might be thinking about a PhD or collaborative research project) and would like to develop their ideas, have their questions answered or work with like-minded individuals for half a day writing up their research.

Do I have to bring along some completed research?

No, you might have an idea for some research or you might have a list of questions about how you might go about researching something of interest. All this and more are welcome.

What will happen at the workshop?

You bring your ideas, your thoughts, questions or developing research project and in collaboration with the presenters and attending colleagues, develop it to the next stage (or further) so that it is a more consistent, well-designed project that you can confidently state will be:

- of high research quality;
- suitable for further dissemination once completed;
- able to provide data that is consistent with a clear research question.

The workshop will begin with a general introduction to suitable research approaches incorporating the critique of pre-prepared manuscripts and addressing key points such as:

- question formulation;
- selection of methodology; and
- data analysis.

You will have access to:

- the presenters; your colleagues; (possibility of building a collaborative project with someone group with similar interest?).
- printing facilities; a desktop computer if you require or space for your laptop.

You and your ideas will:

- be self-contained (i.e. not requiring access to the internet).

Do I need to do anything prior to attending?

There are several options (not mandatory) here depending on your needs:

- you might wish to complete a pre-workshop reading task that will include critiquing manuscripts
- identifying/sending in issues that trouble you in your efforts to do medical education research.

Program at a glance

Thursday 13 September 2007				
9.00–9.30	Opening welcome			Federation Ballroom
9.30–10.15	Keynote address—**Allan Hawke**			Federation Ballroom
10.15–11.00	Keynote address—**Tamara Mackean**			Federation Ballroom
11.00–11.30	**Morning tea**			**Atrium and Gallery**
11.30–1.00	**Concurrent session A**			
	A1—Linking 1	Federation Ballroom North	**A5—Learners 2**	Murrumbidgee Room
	A2—Linking 2	Assembly Boardroom	**A6—Learners 3**	Mount Ainslie Room
	A3—Linking 3	Federation Ballroom South	**A7—Leaders 1**	Centenary Ballroom One
	A4—Learners 1	Black Mountain Room	**A8—Linking 4**	Centenary Ballroom Two
1.00–2.00	**Lunch**			**Atrium and Gallery**
2.00–3.30	**Concurrent session B**			
	B1—Linking 1	Federation Ballroom North	**B5—Learners 2**	Murrumbidgee Room
	B2—Linking 2	Assembly Boardroom	**B6—Learners 3**	Mount Ainslie Room
	B3—Linking 3	Federation Ballroom South	**B7—Leaders 1**	Centenary Ballroom One
	B4—Learners 1	Black Mountain Room	**B8—Linking 4**	Centenary Ballroom Two
3.30–4.00	**Afternoon tea**			**Atrium and Gallery**
4.00–5.30	**Concurrent session C**			
	C1—Linking 1w	Federation Ballroom North	**C5—Learners 2w**	Murrumbidgee Room
	C2—Linking 2	Assembly Boardroom	**C6—Learners 3**	Mount Ainslie Room
	C3—Linking 3	Federation Ballroom South	**C7—Leaders 1w**	Centenary Ballroom One
	C4—Learners 1w	Black Mountain Room	**C8—Leaders 2w**	Centenary Ballroom Two
6.00–7.00	ePosters and cocktails			

Friday 14 September 2007				
9.00–9.15	Housekeeping			Federation Ballroom
9.15–10.00	Keynote address—**Richard Larkins**			Federation Ballroom
10.00–10.45	Keynote address—**Joan McMeeken**			Federation Ballroom
10.45–10.55	ANZAME 2008 Launch			Federation Ballroom
10.55–11.30	**Morning tea**			**Atrium and Gallery**
11.30–1.00	**Concurrent session D**			
	D1—Linking 1	Federation Ballroom North	**D5—Learners 2**	Murrumbidgee Room
	D2—Linking 2	Assembly Boardroom	**D6—Learners 3**	Mount Ainslie Room
	D3—Linking 3	Federation Ballroom South	**D7—Learners 4**	Centenary Ballroom One
	D4—Learners 1	Black Mountain Room	**D8—Learners 5**	Centenary Ballroom Two
1.00–2.00	**Lunch**			**Atrium and Gallery**
2.00–3.00	Keynote address—Student prize winners			Federation Ballroom
3.00–3.45	**Concurrent session E**			
	E1—Linking 1	Centenary Ballroom Centre	**E5—Learners 2**	Murrumbidgee Room
	E2—Linking 2	Federation Ballroom	**E6—Learners 3**	Mount Ainslie Room
	E3—Linking 3	Assembly Ballroom	**E7—Leaders 1**	Centenary Ballroom One
	E4—Learners 1	Black Mountain Room	**E8—Leaders 2**	Centenary Ballroom Two
3.45–4.00	**Afternoon tea**			**Atrium and Gallery**
4.00–5.30	**Concurrent session F**			
	F1—Linking 1	Federation Ballroom North	**F5—Learners 2**	Murrumbidgee Room
	F2—Linking 2	Assembly Boardroom	**F6—Learners 3**	Mount Ainslie Room
	F3—Linking 3	Federation Ballroom South	**F7—Learners 4**	Centenary Ballroom One
	F4—Learners 1	Black Mountain Room	**F8—Linking 4**	Centenary Ballroom Two
5.30	AGM			Federation Ballroom
7.30	**Dinner**			**High Court**

Saturday 15 September 2007				
9.30–10.30	**Concurrent session G**			
	G1—Linking 1	Federation Ballroom North	**G5—Learners 2**	Murrumbidgee Room
	G2—Linking 2	Assembly Boardroom	**G6—Learners 3**	Mount Ainslie Room
	G3—Linking 3	Federation Ballroom South	**G7—Leaders 1**	Centenary Ballroom One
	G4—Learners 1	Black Mountain Room	**G8—Learners4**	Centenary Ballroom Two
10.30–11.00	**Morning tea**			**Atrium and Gallery**
11.00–12.00	**Concurrent session H**			
	H1—Linking 1	Federation Ballroom North	**H5—Learners 2**	Murrumbidgee Room
	H2—Linking 2	Assembly Boardroom	**H6—Learners 3**	Mount Ainslie Room
	H3—Linking 3	Federation Ballroom South	**H7—Learners 4**	Centenary Ballroom One
	H4—Learners 1	Black Mountain Room	**H8—Leaders 1**	Centenary Ballroom Two
12.00–1.15	**Lunch**			**Atrium and Gallery**

Program

Thursday 13 September 2007

8.00	Registration open	
9.00–9.30	Opening welcome—Gerry Corrigan	Federation Ballroom
9.30–10.15	Keynote address—Leading through people and getting results—**Allan Hawke** Chair: Cathy Owen	Federation Ballroom
10.15–11.00	Keynote address—Collaborations in action—**Tamara Mackean** Chair: Peter Pinnington	Federation Ballroom
11.00–11.30	**Morning tea**	**Atrium and Gallery**
11.30–1.00	**Concurrent session A**	

	A1—Linking 1 Chair: Cathy Owen PeArLS Federation Ballroom North	A2—Linking 2 Chair: Marjan Kljakovic PeArLS Assembly Boardroom	A3—Linking 3 Chair: Rebecca Vanderheide PeArLS Federation Ballroom South	A4—Learners 1 Chair: Tony Egan PeArLS Black Mountain Room	A5—Learners 2 Chair: David Prideaux PeArLS Murrumbidgee Room	A6—Learners 3 Chair: Charles Mitchell PeArLS Mount Ainslie Room	A7—Leaders 1 Chair: Michele Groves PeArLS Centenary Ballroom One	A8—Linking 4 Chair: Gerry Corrigan PeArLS Centenary Ballroom Two
11.30	Free to think laterally. The university and the health care service collaborate in an interprofessional learning and teaching initiative for clinical education —**Jennie Scarvell, Judy Stone**	Peer nominations for student distinction: three years of data, where to from here? —**Anthony Ali**	Teaching with a web-based program: Is it a breeze? —**Amanda Howard**	Recording narration to your PowerPoint presentation: what are the benefits for you? —**Marie-Louise Bird**	A card can aid the integration of physiotherapy principles and practice (and help meet competency standards) —**Wendy Chesworth**	A randomised controlled trial of candidate instructions for an EMCQ examination —**Mike Tweed**	Organisational structure and culture in the university setting as a barrier or facilitator to interprofessional education —**Megan Davidson, Robyn Smith**	Migration of health professions: competencies to practice in a foreign country —**Mary MacManus**
12.15	Developing collegiality to improve support for clinical teachers —**Maree O'Keefe**	Old wine: new bottle. Putting Miller's triangle to the test —**John Bushnell**	Linking for learning makes a difference —**Lesley Doughty**	Embedding biomedical sciences within the clinical years of an MBBS Program —**Vaughan Kippers, Louise Young**	The enhancement of learning outcomes using student-centred learning in a human physiology course—student perceptions —**Raj Thalluri**	The pharmacy profession and competency-based assessment: graduated approaches and the university role? —**Stephen Carter, Suzanne Owen**	Practising scholarship in medical education —**Tim Wilkinson**	Practitioner to preceptor: is there a way of shortening the long and winding road? —**Deane Dight**

1.00–2.00	**Lunch**	**Atrium and Gallery**

Thursday 13 September 2007

2.00–3.30 Concurrent session B

	B1—Linking 1 Chair: Kichu Nair Small Groups Federation Ballroom North	B2—Linking 2 Chair: Cathy Owen Small Groups Assembly Boardroom	B3—Linking 3 Chair: Michael Lowe Small Groups Federation Ballroom South	B4—Learners 1 Chair: Mary-Ann Ryall Small Groups Black Mountain Room	B5—Learners 2 Chair: Jennie Scarvell Small Groups Murrumbidgee Room	B6—Learners 3 Chair: Amanda Howard Small Groups Mount Ainslie Room	B7—Leaders 1 Chair: Jenny Savage Small Groups Centenary Ballroom One	B8—Linking 4 Chair: Girish Talaulikar Small Groups Centenary Ballroom Two
2.00	Linking learners to the curriculum: curriculum planning for the 'dispersed curriculum' —**Julie Ash**	Using the whole medical class to stimulate learning: students evaluate health information collected from patients they encounter —**Marjan Kljakovic**	'Touchy feely stuff' and 'new wave fluffiness': clinician–student interaction around patient-centred issues and its influence on students' professional identity formation —**Charlotte E Rees**	Surviving the health care environment with assertiveness skills —**Natalie Wall**	Supporting our international medical graduates—as learners become leaders —**Lorna Davin**	Safe medication practice tutorials for final-year medical students—filling a perceived deficiency in their preparation —**Charles Mitchell**	Encouraging and managing student professionalism in the University of Sydney Medical Program —**Daniel Lin**	Development and implementation of an on-line Master of Medicine Course: what works, what doesn't? —**Anne Morris**
2.30	Reflective inventories: assisting health professional with reflective practice —**Naomi Chapman**	Student guided learning as a strategy to aid rural medical training —**Diann Eley**	Designing an interactive virtual patient clinic with the needs of learners in mind —**Lloyd Reed, Julie Willems**	The effects of context on the marginalisation of dental students in a shared medical and dental curriculum —**Rola Ajjawi**	Changes in learning style preferences in physiotherapy students: a cross-sectional study —**Sonia Denisenko**	Interprofessional learning: a student response to the ACT Health Inter-Professional Learning and Clinical Education Project —**Diana Negri, Negin Sedaghat, Sarah Stephens, Rebecca Vanderheide, Ruth Foxwell**	The Medical Schools Outcomes Database and Longitudinal Tracking Project: bringing health and education leaders together to plan for medical education and workforce needs in Australia and New Zealand —**Pippa Craig**	Unleashing the hidden link for learners: a structural-guided general medicine program for final-year medical students, developed and delivered by junior doctors —**Kwang Chien Yee**
3.00	Improving health outcomes for cancer care and palliative care services: Allied Health Training and Development—Cancer Care Initiative —**Simone Baker**	Supporting our clinical teachers: What links need to be built? —**Imogene Rothnie**	The Extended Clinical Teaching model—a multifaceted approach to improving and sustaining general practice learning and teaching for medical undergraduates at the University of Tasmania's Rural Clinical School —**Megan Rathbone, Rose Moore**	A trial of two different strategies for enhancing implementation of a workplace-based structured clinical assessment tool, the 'mini-CEX', at The Children's Hospital at Westmead —**Shirley Alexander**	Children with a mental illness in a general paediatric unit: meeting the learning needs of the registered nurse —**Trudy Dwyer, Kerry Reid Searl**	Learning to use the language of clinical reasoning —**Stephen Loftus**	Academic leadership at the course level: a survey of development needs in the health sciences —**Richard Ladyshewsky, Sue Jones**	Graduate outcomes alignment to the Australian Curriculum Framework for Junior Doctors —**Rowena Scott**

3.30–4.00 Afternoon tea — **Atrium and Gallery**

Thursday 13 September 2007

4.00–5.30 — **Concurrent session C**

	C1—Linking 1w In-Conference Workshop Federation Ballroom North	C2—Linking 2 Chair: Ruth Foxwell Small Groups Assembly Boardroom	C3—Linking 3 Chair: Fran Everingham Small Groups Federation Ballroom South	C4—Learners 1w In-Conference Workshop Black Mountain Room	C5—Learners 2w In-Conference Workshop Murrumbidgee Room	C6—Learners 3 Chair: Charles Mitchell Small Groups Mount Ainslie Room	C7—Leaders 1w In-Conference Workshop Centenary Ballroom One	C8—Leaders 2w In-Conference Workshop Centenary Ballroom Two
4.00	Advancing interprofessional learning in clinical education settings: models, challenges and possibilities —**Ian Brade, Carlyn Brett-Schneider, Mollie Burley, Natalie Radomski, Lyn Faulks, Bev Blanch**	What do facilitators do to make scenario-based learning sessions effective learning experiences for students? —**Alix Magney, Leah Bloomfield**	Clinical competency in four weeks: mission impossible? —**Jennie Scarvell**	Using simulation for competency assessment —**Jennifer Weller**	Clinical teachers learning from patients and students about educating to care —**Anna Janssen**	Creating assessment that students can use to drive their own learning —**Denese Playford**	Patient safety education: linking theory with reality through leaders and learners —**Kwang Chien Yee**	Interprofessional learning—leading the way in addressing future workforce needs —**Janice Chesters, Cheryl Hobbs, Deborah McGregor, Monica Moran, Gillian Nisbet, Judy Stone**
4.30		CASE: a Clinical Approach to Structured Examination —**Daniel Lin**	Medication safety in undergraduate nursing programs—the medication administration experiences of final-year nursing students in the off-campus clinical setting —**Kerry Reid-Searl**			Learning from performance assessments—results of a study on the Mini-CEX —**Kichu Nair**		
5.00		Reflective practice—cross-professional linkages —**Helen Malcolm**	An integrated surface anatomy course? —**Sue Runciman**			Cross-cultural competencies and challenges: understanding Islam, recommendations for teaching tertiary international and local Muslim students —**Judith Amed**		
6.00–7.00	ePosters and cocktails							Gallery

Friday 14 September 2007

8.00	Registration open	
9.00–9.15	Housekeeping	Federation Ballroom
9.15–10.00	Keynote address—Managing political reality and workforce delivery in health education—**Richard Larkins** Chair: Tim Wilkinson	Federation Ballroom
10.00–10.45	Keynote address—How educators may influence the departure rate of health professionals from the workforce—**Joan McMeeken** Chair: Gordon Waddington	Federation Ballroom
10.45–10.55	ANZAME 2008 Launch	Federation Ballroom
10.55–11.30	**Morning tea**	**Atrium and Gallery**
11.30–1.00	**Concurrent session D**	

	D1—Linking 1 Chair: Julie Ash PeArLS Federation Ballroom North	D2—Linking 2 Chair: Ian Wilson PeArLS Assembly Boardroom	D3—Linking 3 Chair: Peter Camilleri PeArLS Federation Ballroom South	D4—Learners 1 Chair: Tony Egan PeArLS Black Mountain Room	D5—Learners 2 Chair: Graham Reynolds PeArLS Murrumbidgee Room	D6—Learners 3 Chair: Ashley Watson Small Groups Mount Ainslie Room	D7—Learners 4 Chair: Kathy Korsch Small Groups Centenary Ballroom One	D8—Learners 5 Chair: Jennene Greenhill PeArLS Centenary Ballroom Two
11.30	Framing physiotherapy clinical education in situated learning theory —**Narelle Patton**	A focus on Year 1 and 2 medical student rural placements: serving time and optimising learning —**Angelo D'Amore**	Clinical handovers education: should it be part of medical education curriculum? —**Kwang Chien Yee, Ming Chao Wong, Paul Turner**	Reflective writing as an assessment tool —**Nancy Lee**	If mentoring is so important, then it must start at the undergraduate level —**Allison Hilbig**	Supporting learning by use of detailed objectives in a PBL-based integrated course: impact on students' approaches to and confidence in learning —**Anne Tonkin, Carole Gannon**	Assessor's confidence and accuracy in pass-fail decision making —**Mike Tweed**	How to reduce medicolegal uncertainty in clinical practice and education —**David A Kandiah**
						Attitudes, perceptions and knowledge of pharmacy students towards complementary and alternative medicine (CAM)—lessons for CAM education —**Evelin Tiralongo**	How useful are traditional textbooks to modern medical students? —**Diann Eley**	
12.15	Delivering physiotherapy in a sustainable manner —**Wendy Chesworth**	Making interprofessional linkages work for mentoring —**Judy Stone, Coralie McCormack, Gordon Waddington, Giovanna Richmond, Karen Murphy**	Creating new frameworks for studying the learning experience of international medical graduates —**Mary-Ann Ryall, Samantha Egan**	How to research reflective writing in undergraduate medical students? —**Pamela Hyde, Helen Moriarty**	Hertzberg's Motivation-Hygiene Theory applied to student experience —**Joy R Rudland**	Educators learning together and modelling interprofessional collaboration —**Susan Vella**	Intercalated degree at Auckland Medical School: barriers, benefits and postgraduate career profiles —**Serena JK Park**	Developing a multimedia resource for teaching intercultural clinical communication —**Robyn Woodward-Kron**

1.00–2.00	**Lunch**	**Atrium and Gallery**

Friday 14 September 2007

2.00–3.00	Keynote address—Student prize winners Chair: Mary-Ann Ryall							Federation Ballroom
2.00	Using patients' perceptions in the assessment of year four physiotherapy students' clinical performance—**Martin Kidd**							
2.20	A case-based learning project exploring concepts of clinical education—**Charlotte Denniston**							
2.40	Questions							
3.00–3.45	**Concurrent session E**							
	E1—Linking 1 Chair: Cathy Owen PeArLS **Centenary Ballroom Centre**	**E2—Linking 2** Chair: Gerry Corrigan PeArLS **Federation Ballroom**	**E3—Linking 3** Chair: Misty Curry PeArLS **Assembly Ballroom**	**E4—Learners 1** Chair: Kirsty Douglas PeArLS **Black Mountain Room**	**E5—Learners 2** Chair: Charles Mitchell PeArLS **Murrumbidgee Room**	**E6—Learners 3** Chair: Mary-Ann Ryall PeArLS **Mount Ainslie Room**	**E7—Leaders 1** Chair: Coralie McCormack PeArLS **Centenary Ballroom One**	**E8—Leaders 2** Chair: Gordon Waddington PeArLS **Centenary Ballroom Two**
3.00	Hypnotherapy—poised to enter higher education —**Jenny Graham, Ian Wilson, Godfrey Isouard, Leon W Cowen**	Linking students with one another to share information about drugs and alcohol —**Vanessa K Hughes**	Reflections on how students acquire skills in physical examination —**Anna Vnuk**	The attitudes and expectations of first-year medical students to mental health and mental health training —**Jessica Ogle**	Professional, communication and clinical skills: linking undergraduate and postgraduate medical curricula —**Barbara O'Connor**	What did audit and surveys tell us about cohorts of medical graduates in their prevocational training years? —**Jenny Gough**	Opening dialogue to build university partnerships in teacher development and research in collaboration with ANZAME —**Tim Wilkinson, Fran Everingham, Jennene Greenhill**	The learner to leader link: should ehealth be a core element of undergraduate medical education? —**Kwang Chien Yee, Ming Chao Wong**
3.45–4.00	**Afternoon tea**							**Atrium and Gallery**

Friday 14 September 2007

4.00–5.30 Concurrent session F

	F1—Linking 1 Chair: Sneha Kirubakaran Small Groups Federation Ballroom North	F2—Linking 2 Chair: Graham Reynolds Small Groups Assembly Boardroom	F3—Linking 3 Chair: Tim Wilkinson Small Groups Federation Ballroom South	F4—Learners 1 Chair: Michele Groves Small Groups Black Mountain Room	F5—Learners 2 Chair: Charlotte Emma Rees Small Groups Murrumbidgee Room	F6—Learners 3 Chair: Jenny Savage Small Groups Mount Ainslie Room	F7—Learners 4 Chair: Misty Curry Small Groups Centenary Ballroom One	F8—Linking 4 Chair: Jenny Gough Small Groups Centenary Ballroom Two
4.00	Identifying 'collaborative stepping stones': helping new and existing team members learn to reframe collaborative practices —**Anne Croker**	Launceston Clinical School's Patient Partner Program and database —**Kathryn Ogden**	Student focused clinical training: innovative model in a sub-speciality medical ward in a tertiary hospital —**Girish Talaulikar**	Establishing standards for clinical competency testing: the good, the bad and the ugly! —**Elfi Ashcroft**	Educators are learners too: the outcomes of a DHS-funded Training and Mentoring Program —**Allison Hilbig**	Enhancing medical student learning experience by reinforcing their information skills —**Sandra Carr**	'Definitely necessary, will be a valuable learning tool. But I don't want to be made to feel uncomfortable': Measuring the attitudes of medical students to peer physical examination from different international settings and over time —**Anna Vnuk**	Different pathways, same ends: core psychiatry experiences in a community-based clinical program —**David Prideaux**
4.30	Safety on clinical placement: students, patients, and teachers —**Jan Coles**	Does the clinical placement model used in the School of Nursing at Flinders University promote collaborative relationships between academic and clinical staff, and what are the factors that promote and hinder this process?—**Maria Ng**	The junior doctor experience—from preparation to practice —**Joy Rudland**	Faculty development in a new school: an evaluation —**Gary Butler**	Learner: evaluating and meeting their needs. Self-assessment promotes dialogue between medical students and clinical teachers —**Karen Garlan**	Let's get clever in helping our teachers discover their enthusiasm and talent for assessment —**Jenny Savage**	'I'd feel embarrassed if the people I see out of class had seen my privates': medical students' views of learning through peer physical examination —**Charlotte Rees**	Building communities of practice in clinical education through blogging —**Richard K Ladyshewsky, Peter Gardner**
5.00	What health professionals do: a framework for the development of assessable learning outcomes —**Rufus Clarke**	The Health Care Team Challenge: linking students for interprofessional learning: a student presentation —**Monica Moran, Jessica Page, Rachael Baker, Amanda Wood, Kristy Nash**	Linking learners and engaging leaders to foster interprofessional learning and practice —**Robyn Smith**	How do assessors make decisions on scoring of observed consultations? —**Christopher Ingham**	Linking learners with people and places to develop future local medical workforce —**Robyn Hill, Daryl Pedler**	The development and use of a tool for assessing clinical competency and to provide formative assessment opportunities —**Toby Gardner**	Medical student exposure to intimate interactions —**Deanne Sceales, Devini Ameratunga**	Extending the campus: rich learning pathways in ageing —**Wendy Chesworth**
5.30	AGM							Federation Ballroom
7.30	**Dinner**							**High Court**

Saturday 15 September 2007

9.00	Registration open							
9.30–10.30	**Concurrent session G**							
	G1—Linking 1 Chair: Sneha Kirubakaran Small Groups **Federation Ballroom North**	**G2—Linking 2** Chair: Gerry Corrigan Small Groups **Assembly Boardroom**	**G3—Linking 3** Chair: Cathy Owen Small Groups **Federation Ballroom South**	**G4—Learners 1** Chair: Andy Wearn Small Groups **Black Mountain Room**	**G5—Learners 2** Chair: Jennene Greenhill Small Groups **Murrumbidgee Room**	**G6—Learners 3** Chair: Ian Wilson Small Groups **Mount Ainslie Room**	**G7—Leaders 1** Chair: Tony Egan Small Groups **Centenary Ballroom One**	**G8—Learners4** Chair: Julie Ash Small Groups **Centenary Ballroom Two**
9.30	Planning for the future of allied health professionals: state-wide Allied Health Cancer Care Training and Development Program —**Tanya Trevena**	Implementing peer and self-assessment to enhance learning outcomes in the biomedical and allied health sciences —**Peter J Johnson**	Developing a personal formulary: helping students get to grips with clinical pharmacology —**David Tordoff**	What are the skills and attributes that a pharmacist (or any health care worker) requires to remain relevant for the health workforce of the future? —**Gabrielle Cooper**	Application of business principles in integrated clinical medical education —**David A Kandiah**	Meeting the drug information needs of university students: the effectiveness of an online drug and alcohol awareness program —**Kathy Robinson**	How does population/public health fit into an undergraduate medical curriculum —**Barbara O'Connor**	Can empathy be learned online? A comparison of three pedagogical approaches in a MBBS program —**Louise Young**
10.00	Integrating interprofessional learning into curriculum: addressing the challenges —**Deborah McGregor, Gillian Nisbet**	Tackling the challenge to provide improved teaching in chronic disease management —**Jan Radford**	Linking basic physician trainees, training physicians and health services in the Victorian consortium model of basic physician training —**Ka Chun Tse**	Enhancing student feedback across the faculty: linking learning and feedback for students —**Sandra Carr**	Supporting students in a mobile learning environment —**Chris Roberts**	Development of a learning diary linked to a generic curriculum for trainee pathologists —**Wendy Pryor**	A practical and sustainable approach to the delivery of a year-long undergraduate community-based placement to deliver clinical training in psychiatry, women's health, general practice and children's health —**George T Somers**	Changes in students' knowledge, skills and attitude: results from pre-registration interprofessional learning workshops —**Louise Young**
10.30–11.00	**Morning tea**							**Atrium and Gallery**

Saturday 15 September 2007

11.00–12.00 Concurrent session H

	H1—Linking 1	H2—Linking 2	H3—Linking 3	H4—Learners 1	H5—Learners 2	H6—Learners 3	H7—Learners 4	H8—Leaders 1
	Chair: Ruth Foxwell Small Groups **Federation Ballroom North**	Chair: Marjan Kljakovic Small Groups **Assembly Boardroom**	Chair: Gerry Corrigan Small Groups **Federation Ballroom South**	Chair: Kirsty Douglas Small Groups **Black Mountain Room**	Chair: Jenny Savage Small Groups **Murrumbidgee Room**	Chair: Michael Lowe Small Groups **Mount Ainslie Room**	Chair: Peter Camilleri Small Groups **Centenary Ballroom One**	Chair: Gabrielle Cooper Small Groups **Centenary Ballroom Two**
11.00	Linking health professional students' learning and communities —**Johnny Hall, Heather Baker**	A multidisciplinary postgraduate educational program in international health and development for health professionals —**Sneha Kirubakaran**	A three-year review of first-year nursing students' perceptions and experiences while studying science —**Hemant Mehta**	Addressing obstacles to success: what science do midwives and nurses really need? —**Gudrun Dannenfeldt**	A framework for evaluating a new Master of Pharmacy coursework in training Australian pharmacists —**G David Lin**	A new model to look at constructive feedback **Joy R Rudland**	Usage patterns of learners accessing online lecture materials —**Pippa Craig, Helen Wozniak**	A decade of rurally educated medical students: why are they where they are? —**Pamela Stagg**
11.30	Identifying aptitude for medical practice: how does the admissions interview rate? —**Michele Groves**	Interprofessional learning for primary care: experienced nurses and doctors working together —**Sue Pullon**	Adding assessment scores—what are the impacts of our choices? —**Ian Wilson**	How medical students define success: an educator's guide to the current generation —**Misty Curry**	Enabled observation: enhancing interdisciplinary health students' empathic understanding using the visual arts —**Jo Gibson, Rebecca Vanderheide, Pamela Clelland Gray**	Computer-based medical education—how to plan, design and build your own resources and what is the evidence for using it? —**Sascha Saharov**	Developing assessment of pharmacists: combining components —**Mike Tweed, Owain George**	Linking leaders to learners: the generation of an in-depth understanding of the inter-relationship of knowledge, competency and performance —**Kwang Chien Yee, Hussam Tayeb**

12.00–1.15 Lunch — **Atrium and Gallery**

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Abstracts—Thursday

Leading through people and getting results

Allan Hawke, Australian National University

Dr Hawke will outline his views about the theory and practice of leadership honed from thirty years or so reading, reflecting and practising how you deliver results through people. His insights and learnings can be readily adapted by anyone in their workplaces.

Collaborations in action

Tamara Mackean, Australian Indigenous Doctors' Association and Flinders University School of Medicine

The recent collective work of the Australian Indigenous Doctors' Association, the Australian Medical Council and the Medical Deans of Australia and New Zealand highlighted the benefits of collaboration in reforming approaches to Indigenous medical education. There are now flexible, national frameworks that provide foundations on which medical schools can strive for quality in relation to teaching and learning, and improvements in recruitment and retention of Indigenous students. What then, are some of the more specific strategies and tools that schools can implement that turn frameworks into actions and outcomes? This presentation will discuss examples of various techniques utilised within medical schools, including advisory groups, community involvement, Indigenous academics, Indigenous health professionals, the barriers and enablers of these techniques, as well as the process of building and maintaining meaningful partnerships with Indigenous individuals and organisations.

Free to think laterally. The university and the health care service collaborate in an interprofessional learning and teaching initiative for clinical education

Jennie Scarvell, University of Canberra, **Judy Stone**, ACT Health

Context

The ACT Health Inter Professional Learning project has been evolving since 2004. Inter Professional Learning (IPL) is defined as a collaborative, interdisciplinary education and learning process designed to produce effective, multidisciplinary patient-centred care.

The University of Canberra, in common with other tertiary institutions, is focused on continuity between IPL initiatives introduced in academic programs with an IPL culture in the health care setting. Clinicians who take students, likewise seek to inspire their teaching of professional cultural identity in a context of inter professional practice (IPP). IPL is an opportunity to solve some of the resource pressures of clinical education and improve the efficiency of health service delivery.

Some key IPL competencies would include:

- Readiness to exchange viewpoints and information.
- Willingness to share or relinquish responsibility for a patient.
- Understanding of how health professional roles interrelate.
- Ability to collaborate and negotiate effectively with other health professionals and agencies.
- Ability to identify situations in the working context where collaboration needs development and act accordingly.
- Ability to select and adapt strategies for improving collaboration that are responsive to a specific care context.

The question

Positive steps have been taken collaboratively by ACT Health and the University of Canberra to promote an IPL culture in both clinical practice and clinical education. A series of workshops has been designed to improve clinical learning and develop clinician's teaching skills, beginning the process of fostering an IPL focused clinical education community.

Outcomes of the workshops as reported by the leaders were that interprofessional problem solving provided a very dynamic and positive avenue for lateral thinking and sharing solutions. There was an energy and collegiality to the workshops not predicted. However there is still a long way to go in terms of clinical education and practice. This discussion would like to explore further opportunities to teach IPL to clinicians and clinical educators.

- How can we strengthen our IPL focus within health service delivery and clinical education?
- How can we use IPL principles to further solve our clinical education issues?
- How do we best utilise a community of clinical educators sharing practice ideas?
- How can we integrate IPL into our health service culture?

Acknowledgments

Laurie Grealish, Claire Bekema, Deborah Carrera, Ann Ertzen, Karen Murphy, Jeffery Braithwaite, Jo Travaglia, Marc Budge, Rosalie Boyce, Ruth Foxwell, Mary-Ann Ryall, Joy Vickerstaff, Liz Renton, Amanda Barnard, and Rebecca Vanderheide.

Developing collegiality to improve support for clinical teachers

Maree O'Keefe, Amanda Le Couteur, Jennifer Miller, Ursula McGowan, Mark Andersson, University of Adelaide

Brief overview of our experiences with the first year of the colleague development program to set the scene for general discussion

A multi-disciplinary program of peer observation partnerships was implemented across the University of Adelaide Faculty of Health Sciences in 2006. The 'Colleague Development Program' focused on improving teaching and promoting collegiality within and across traditional discipline boundaries. Some approaches to developing peer observation partnerships were modelled by the facilitators at the start of the program.

Volunteer teachers approached a trusted colleague asking them to observe a teaching session and provide feedback on good practice together with suggestions for improvement. The teachers identified specific learning/teaching objectives that guided the teaching session observation. A written summary of mutually agreed outcomes was prepared by the observer and given to the teacher.

The overall program evaluation (questionnaires and focus groups) indicated that, in general, the teachers experienced increased confidence in teaching, exposure to new teaching ideas and a greater sense of collegiality as a result of their participation. The evaluation also identified a number of clinical teaching staff who felt isolated and unsupported in their teaching role. Many of these staff were located in clinical teaching hospitals and had some difficulty identifying an observing colleague. These clinical teachers also preferred to work with a colleague from the same rather than a different discipline.

Participant discussion of issues arising from this experience

- What supports might clinical teachers need?
- What are the comparative merit of working with a colleague from within the same discipline versus a colleague from another discipline who may bring different perspectives and experiences?
- What theoretical content should support a program such as the Colleague Development Program?
- For clinical teachers, who is a 'trusted colleague'?

Discussion participants will be encouraged to share any similar experiences and challenges.

A2—Linking 2

Peer nominations for student distinction: three years of data, where to from here?

Anthony Ali, Prof Tim Wilkinson, University of Otago, Christchurch, **Dr Mike Tweed,** University of Otago, Wellington, New Zealand

Abstract

The University of Otago, Faculty of Medicine have agreed that students who qualify for distinction should demonstrate significant achievement in the Faculty's objectives. However, some of the Faculty's objectives relate to skills and attitudes that are not easily assessed by traditional assessments, but are nonetheless deemed important. These include peer communication, interchange of information, teamwork, and peer support.

We felt that peers can provide some of the most valuable information with respect to those listed

above. Accordingly, we asked students in the clinical years of the University of Otago, Christchurch School of Medicine to nominate classmates who they thought demonstrated distinguished performance with respect to these attributes.

We have now conducted this nomination process for three years in a formative manner. Students eventually selected as distinct through this process have received a Dean's commendation letter. With three years data and experience, we are now in a position to evaluate this process.

Our questions

Is peer nomination just telling us what we already know? i.e. are peers picking the same students for distinction as we are picking through our usual assessments?

Is it telling us something different? i.e. are other students being selected through this process? If so, what is it about these other students selected by peers that distinguish them from students selected by traditional assessment results, and visa versa?

We will present some data related to these questions and will seek guidance from the attendees. We will also present some criteria we have developed that helps us use the student nominations.

The session will then focus on four questions:

- Should we continue with this student nomination process?
- If yes, should we consider a move to a more summative type of assessment?
- Are others doing anything similar?
- Should we be gathering student feedback on this process to help inform our data interpretations and conclusions?

Biography of presenting author

Anthony Ali is Medical Education Adviser for the University of Otago, Christchurch. He previously worked in Canada as a lecturer in Medical Radiation Technology and attained his MEd from the University of Toronto (1999). In his 17 year career he has held various education roles including clinical tutor, university lecturer, and staff developer.

Old wine: new bottle. Putting Miller's triangle to the test

John Bushnell, Nicky Hudson, Lyndal Parker-Newlyn, Peter McLennan, Graduate School of Medicine, University of Wollongong

The University of Wollongong is in the first year of delivering a graduate entry MBBS degree that focuses particularly on regional rural and remote health. The curriculum uses a modified problem-based learning approach supported by multiple learning methods; an intensive focus on clinical skills; and early and longitudinal exposure to a diversity of hospital and community clinical experiences.

The degree has defined 61 Learning Outcomes in four vertical themes that guide curriculum development and assessment strategy. Each outcome is assessed at different levels of achievement through the four years of the course, using an adaptation of Miller's triangle to create an assessment framework. This PeArL discusses the advantages and limitations of this approach to the planning of both curriculum and assessment.

A3—Linking 3

Teaching with a web based program: Is it a breeze?

Amanda Howard, ANU Rural Clinical School

Teaching medical students in located rural areas throws up many challenges, not least of which is how to create an environment in which students are able to interact and learn from their peers and academic staff. In the third year of the ANU Medical School curriculum, case-based learning is offered rurally through web-based tutorials. The program we use, Breeze, facilitates interaction by vision, voice and chat. The presenter's image and voice, and his/her slide presentation are transmitted to all the participants via the web. The opportunity also exists for participants, including the presenter, to communicate in writing throughout the tutorial via the chat mechanism. The tutorials are run on a case-based tutorial model and involve 10–15 students. Two to four students present a case verbally on a pre-determined topic from one of 20 locations throughout South East New South Wales, and participants log on via the web.

In face-to-face tutorials, students are encouraged to lead and engage their peers in discussion while the

tutor takes a more facilitative role. Technology necessitated by the rural sites adds a layer of difficulty to this process. As a tutor for these web-based sessions, I have found my teaching style has had to adapt to the teaching environment. Inexperience with the technology is often an initial problem for students, requiring more involvement of the tutor in encouraging a questioning attitude within the group. While the presentation is in progress, I find myself seeding questions with participants which would otherwise be disruptive to the presenter in a face-to-face tutorial. To build student confidence, I find myself frequently encouraging students' thoughts and comments through my own typed prompts. While some students find this multi-tasking difficult—paying attention to the presentation while engaging in online discussion—others enjoy the discussion that often flows from a point not otherwise considered. Students express appreciation for the rapid feedback this approach offers. Another of the benefits, then, is the opportunity that web-based tutorials offer for confidential questions or discussions between tutor and presenters, or between students.

I will demonstrate a short segment of a recorded web-based tutorial and then discuss with participants further possibilities for teaching clinical medicine in this challenging environment. I would appreciate the opportunity to discuss further the experience and wisdom of others in this development.

Linking for learning makes a difference

Lesley Doughty, Ann McKillop, School of Nursing, University of Auckland

Background

The transition of newly qualified registered nurses into the health workforce is known to be a challenging process. The first year of clinical practice is a crucial period that impacts on both the clinical and academic development of registered nurses. Given the current health workforce crisis experienced internationally, the recruitment and retention of newly qualified registered nurses is deemed a priority for growing the nursing workforce. Increasingly programs that support this transition phase are under scrutiny. A model linking a university and a health care provider as partners in the development and delivery of such a program can impact favourably on the future development of the nursing workforce.

Aims

This presentation evaluates the impact, context, support for and limitations of a new educational program for newly qualified registered nurses that linked a university with health service providers. This presentation will also discuss the process of implementing the program and raises issues of collaboration, communication and differing expectations of the institutions involved.

Methods

Newly qualified registered nurses were surveyed early in the program and on completion. The survey involved a questionnaire which addressed aspects regarding the process and the impact of the program on their practice development. Senior nurses were also surveyed to gain insight into how the program met the needs of the health service in which the newly qualified registered nurses were working and in addition how this addressed their workforce needs.

Results

The program impacted favourably on the newly qualified registered nurses in terms of providing a supportive entry to practice. In particular there was an improved level of confidence in their practice abilities which was strongly linked to their increased knowledge base and improved communication skills. The senior nurses also acknowledged the improved level of confidence and the positive impact on recruitment and retention. Clear organisational benefits were identified for both of the linking partners. The surveys led to several recommendations for ongoing development of the program and the partnership. Key issues that arose during the joint process such as differing expectations around workload, clinical placements and assessment are explored and ways in which they were addressed are identified

Conclusion

This model linking a university and health service providers successfully meets the needs of the newly qualified registered nurse and the partner organisations for the early career development of the nursing workforce. Ongoing assessment of the content and impact of such programs is essential for their continued success.

A4—Learners 1

Recording narration to your PowerPoint presentation: what are the benefits for you?

Marie-Louise Bird, University of Tasmania

In 2006 the use of technology to record lectures both centrally and by individual lecturers (using Impatica) increased in the Faculty of Health. Literature focuses on student use, but the perceptions and intentions of the staff have not been explored in depth. Academic staff were involved in a focus group and survey to determine their perceptions on benefits for them, and possible barriers to use of new technologies. Interesting results include the use of audio lectures as a tool for reflection and inclusion in teaching portfolios, and the implications on workload will be discussed.

Embedding biomedical sciences within the clinical years of an MBBS Program

Vaughan Kippers, School of Biomedical Sciences and School of Medicine, **Louise Young**, Centre for Medical Education, **Kevin Forbes**, School of Medicine, The University of Queensland

Medical graduates need to demonstrate clinical skills and to explain what they are doing, both to senior clinicians and their patients. A firm grasp of the underlying basic sciences as well as clinical sciences assists communicating medical information. Interpretation of medical research literature is enhanced by a thorough understanding of the underlying basic science (biological plausibility). As foundation information, medical specialty colleges emphasise biomedical knowledge in their early examinations, which indicates the importance of repeated exposure to this knowledge.

The Graduate-entry MBBS Program at The University of Queensland has four designated domains of learning, one of which is Biomedical Sciences. During the first two years, there are two turns of the spiral medical curriculum, so that students are introduced to each of 11 systems in their first year and then add to this knowledge and clinically apply the knowledge during their second year. To achieve vertical integration, Years 3 and 4 should include a third turn of the spiral curriculum, when students consolidate their knowledge of biomedical sciences within the context of clinical practice and are encouraged to ensure that the basic science knowledge applied is the best available current evidence. Medical curricula that have attempted to vertically integrate all domains of learning have been very successful at transferring clinical knowledge and skills into the foundation years of the program, but most have failed to embed the teaching of biomedical sciences in the later years. The aim is to improve clinical performance of students by embedding biomedical science knowledge at the time when it is being applied, during the later, ie. clinical, years of a medical program.

In conjunction with other Australian Medical Schools, we would like to develop e-learning modules to integrate selected disciplines within biomedical science, into the clinical years of the MBBS program. The preparation of e-learning modules, based on the core curriculum for each course, will be a collaborative teaching project and may include associated Teaching and Learning Resource Packs. These may encourage exercises for small groups of students (eg. generating concept maps), formative assessment, and ideas for clinical tutors who may like to become involved in the collaborative learning sessions. Summative assessment items may also be used for comparative purposes. Collaboration is required to develop integrated learning activities that will encourage students to develop clinical reasoning that incorporates biomedical knowledge when evaluating the evidence base of patient management for a specific clinical problem. Direct clinical application of the material will be emphasised. Of particular importance will be the inclusion of recent research findings, so that the material is more than revision of material presented in earlier years.

A5—Learners 2

A card can aid the integration of physiotherapy principles and practice (and help meet competency standards)

Wendy Chesworth, The University of Canberra

The core principles of physiotherapy practice have been formalised into a card to assist physiotherapy students to integrate theory, assessment and practice. It does this using a problem-oriented framework to clinical cases. The current competency standards underwrite the core principles of physiotherapy practice. These standards include Assessment, Interpretation, Planning, Implementation and Evaluation. Using these standards as a framework challenges students to integrate, in a systematic manner, information from the subjective and

objective patient assessment into a problem list against which goals, treatment choices and measures to evaluate the treatment must be set. Problems or issues are separated into those that are directly amenable to physiotherapy treatment and those that are not, but may influence treatment choice. This avoids the prescription and practice of so-called 'routine' treatments and aids students in planning tailored individual treatments. For examination purposes an additional section—the rationale for treatment—requires students to justify their choice of treatment based on the student's theoretical understanding and evidence based treatments. The card provides a format to enable easy comparison to the competency standards set for entry-level physiotherapy graduates. It allows educators to successfully track student thinking, promoting both a patient-centred and quality clinical practice. This system has been used successfully in the two cardio-respiratory units offered at the University of Canberra and their corresponding clinical education. This simple system can also be used for other areas of physiotherapy, particularly those using a problem oriented approach to assessment and treatment.

The enhancement of learning outcomes using student-centred learning in a human physiology course—student perceptions

Raj Thalluri, Paul Strube, University of South Australia

Background

There is some research evidence to suggest that student centred learning is well appreciated by students. There appears to be a positive relationship between learning experiences that place the student in control and course satisfaction.

Method

In this paper, the authors investigated student satisfaction with student centred learning through Curriculum Evaluation Instruments used by the University. The course was human physiology for Occupational Therapy students

Results and discussion

Student course satisfaction showed significant gains in the indicators of enjoyment as well as quality. The use of student prepared and presented tutorials was particularly singled out as a positive initiative in the course.

Conclusion

Teachers of human sciences can positively influence student satisfaction by employing techniques which place the student at the centre of the curriculum, without loss of depth or quantity of content.

A6—Learners 3

A randomised controlled trial of candidate instructions for an EMCQ examination

Mike Tweed, Tim Wilkinson, University of Otago

MCQ marking often just takes account of the number of correct responses, but this may encourage guessing. Guessing in clinical practice should be discouraged. Ideally responses should contain a high proportion of correct choices, no unsafe choices and the use of don't know rather than incorrect.

An optional 20 question EMCQ was offered to year 4 and year 5 medical students. Students were randomised to receive one of four instruction options: 1) alert to unsafe; 2) mark deduction for unsafe; 3) correction for guessing; and 4) number-correct marking, the control group.

210 students sat the EMCQ. For the year 4 cohort, compared with the control group, being alerted to possible unsafe answers and mark deduction for unsafe or incorrect responses were both associated with greater use of don't know responses and less incorrect responses. For the year 5 cohort, there were no differences in responses between options. The year 5, compared with year 4 cohort, gave more correct, fewer incorrect, and fewer don't know responses.

Both the year group and instructions had an effect. Mark deduction for unsafe or incorrect responses had the expected association with greater use of 'don't know' responses, but just alerting students to the possibility of unsafe options had a measurable effect. Instruction options, even without mark penalties, can have effects and the directions of these effects need to be considered.

Possible questions for discussion

- How do others deal with guessing?
- How do others deal with unsafe (guessed or not) responses?
- What other subliminal messages do we send by our assessments?
- Would guessing in assessment be translated into guessing in clinical practice?
- How do others use MCQs and are they worried about any adverse effects?

Instruction option		No.	Mean number of responses (95% CI)		
Year 4			Correct	Incorrect	Don't know
1	Alert to unsafe	23	9.04 (4.55–13.53)	9.35 (4.31–14.39)	1.61 (0–5.65)
2	Mark deduction for unsafe	25	10.12 (4.98–15.26)	7.68 (2.76–12.60)	2.20 (0–6.55)
3	Correction for guessing	21	9.10 (3.42–14.78)	8.14 (1.2–15.08)	2.76 (0–9.11)
4	Control	20	9.60 (4.54–14.66)	9.90 (5.1–14.70)	0.50 (0–2.13)
			p=0.45	p=0.03	p=0.01
All		89	9.48 (4.40–14.56)	8.71 (3.07–14.35)	1.80 (0–6.45)
Year 5					
1	Alert to unsafe	30	14.87 (11.89–17.85)	4.93 (2.03–7.83)	0.20 (0–1.14)
2	Mark deduction for unsafe	31	14.10 (9.26–18.94)	5.77 (1.16–10.38)	0.13 (0–0.80)
3	Correction for guessing	30	14.40 (10.11–18.69)	5.3 (1.30–9.30)	0.30 (0–1.67)
4	Control	30	14.43 (10.14–18.72)	5.37 (1.39–14.35)	0.20 (0–1.40)
			p=0.57	p=0.44	p=0.69
All		121	14.45 (10.29–18.61)	5.34 (1.42–9.26)	0.21 (0–1.29)

The pharmacy profession and competency-based assessment: graduated approaches and the university role?

Stephen Carter, University of Canberra, **Suzanne Owen**, University of South Australia

The professional body representing pharmacists in Australia, The Pharmaceutical Society of Australia (PSA) have published competency standards for practicing pharmacists. These standards may be used as a guide to assist registration bodies with the process of training and assessing of graduate level and practicing pharmacists. The standards may also be used to assist the designing of curriculum for universities training the professional courses that lead into the graduate training courses within Australia. The standards define competencies into a framework which set performance criteria and provide evidence guides against which practising pharmacists may be assessed. According to the design of the framework, standards are assessed when a pharmacist is actually working in practice. Yet some of the evidence guides supporting elements of competency are either: (a) purely knowledge based; or (b) knowledge plus communication skills. It is usually the intention of university subjects such as Pharmacy Practice to teach the knowledge and skills which support these activities and much documentation is gathered in the process.

Most university curricular include 'clinical placement' where students attend various workplaces in order to put the knowledge and skills learned at university into context, to provide some experiential learning which makes university education more meaningful to students. In addition, it is likely that without some experiential learning employers would find graduates too knowledge focused and out of touch with reality.

The dilemma facing university teachers is that the evidence guides provided in competency standards provides for an all or nothing assessment. For pharmacists, competency assessment occurs through the registration and professional bodies after graduation from university and at the completion of one year's internship. While the competency and pre-registration processes are nationally agreed, the expectations of learning outcomes upon graduation are less clear across pharmacy schools. Many graduating students have considerable conceptual understanding of pharmaceutical knowledge but competency assessment only occurs after the pre-registration year. Within university courses, most areas of professional practice are at various stages of development towards the competencies but no descriptors are available to differentiate between those who are novices in the early stages of skill-building and those who are more advanced.

It is the intention of this session to explore competency assessment and graduated approaches relevant to pharmacy students within their university studies.

A7—Leaders 1

Organisational structure and culture in the university setting as a barrier or facilitator to interprofessional education

Megan Davidson, La Trobe University, **Robyn Smith**, Northern Health, **Karen Dodd**, La Trobe University, **Jenni Smith**, Northern Health

Organisational structure and culture can be a major barrier to interprofessional education (IPE). Structural factors relate to the ways in which faculties, departments and schools are organised, as well as the size and timing of units or subjects within the curricula. Cultural factors refer to the attitudes toward and value placed on IPE. Culture may be reflected in structure, and structure may inhibit changes in culture.

Pre-qualification courses for entry into the health professions are typically delivered in discipline-specific streams in which curricula has been designed to meet criteria relevant to each discipline. A lack of alignment between course units and timetables presents a major logistical barrier to introducing IPE into existing curricula. Lack of temporal alignment of fieldwork experiences can create an almost insurmountable barrier to IPE in clinical or fieldwork settings (IPCE).

Multidisciplinary education, where students of more than one discipline take the same unit or subject, is common in the earlier years of professional courses. However, where interprofessional education occurs, it typically occupies a small part of the curriculum and is considered peripheral rather than central—almost an 'optional extra'. Discipline-specific knowledge and skills are commonly learned in isolation from other disciplines and interprofessional teamwork is not explicitly considered to be a core competency.

At the Faculty of Health Sciences at La Trobe University IPE has been 'on the agenda' for many years and some progress has been made. This is illustrated by two major programs: 1) the introduction of an on-line IPE unit in students' final year, and 2) a partnership project with a local metropolitan Health Service (Northern Health) to develop and implement an IPE model for clinical placements. This project is funded by the Department of Human Services in 2006–07.

A major organisational restructure has seen Allied Health disciplines grouped together as one division of the Faculty, while Nursing and Midwifery comprise another division. A major course redesign will see the current Bachelor level courses replaced by double degree Bachelor/Masters and Graduate Entry Masters courses across the Faculty in 2009.

The restructure and major curriculum redesign has presented an opportunity to remove some of the barriers to IPE that previously hindered development of this aspect of teaching, learning and practice. Interprofessional learning will form a major component of a common first year, and will stream through to the final year of the course.

This PeArLS invites participants to discuss how educators can meet the challenges of:

- designing IPE units that are meaningful and engaging
- balancing development of a professional identify with identity as part of a client-centred, interprofessional team
- designing IPCE experiences that develop IP skills in clinical or fieldwork settings
- managing the lack of representation of some disciplines

Practising scholarship in medical education

Tim Wilkinson, University of Otago

At last year's conference I presented a keynote address on scholarship. During that session I asked the audience to suggest ways that ANZAME should practise what we preach in relation to scholarship. Following small group discussions, 51 written summaries were provided. As promised, I have collated these summaries and grouped them into 4 themes:

- deep thinking
- catering for diverse needs
- outward looking
- keeping up the momentum.

I then grouped them into an overall framework with three broad areas:

- looking after
- looking in
- looking out.

The purpose of this PeArLS is to feed back on your feedback, to seek your reactions to the framework and to continue our discussions on how scholarship can be enhanced at ANZAME.

A8—Linking 4

Migration of health professions: competencies to practice in a foreign country

Mary MacManus, Auckland University of Technology, New Zealand

The health professional workforce in New Zealand and I believe Australia has dramatically changed over the last 7–10 years with a significant increase in the migration of health professionals especially from third world countries. These professionals have

been invaluable in filling gaps resulting from a shortage of health professionals who have been educated in our own countries.

There are countries that have policies to educate people as health professionals for migration to other countries, especially to first world countries. In December 2006 I was invited to participate in an APEC workshop in Jakarta. The intent of this workshop was to discuss the standardisation of competencies for nursing registration across APEC countries. This was to facilitate migration of nurses throughout this region.

The issue of migration of health professions is a contentious one. The impact of the rise in migrant professionals in the health services is all too obvious however we cannot do without them.

While it is possible to educate people with a generic education for each health discipline it is a different matter to educate people to work in a foreign country. The importation of health professionals needs careful management.

This session will explore the issue of migration of health professionals and the competencies required to work in a foreign country.

It will address questions such as

- Are the competencies required for registration the same for people educated within a country and those registered in a foreign country seeking to migrate?
- Can we better support a migrant professional to work in New Zealand or Australia?

Practitioner to preceptor: is there a way of shortening the long and winding road?

Deane Dight, Pharmacy Lecturer, University of Canberra

Introduction

Enthusiastic and willing practitioners remain the backbone of experiential teaching while specific training as preceptors enhances the experience and outcome for preceptor, student and profession. In 2003 a five module* online Australian Pharmacy Preceptor Program was funded by a rural grant[1], a sixth module was designed to specifically address mentorship. This program took the sample of practitioners 10 to 30 hours to complete in sessions ranging from 30 minutes to over 2 hours.[2]

With the increased number of Pharmacy courses throughout Australia, the need for preceptors is great. Busy metropolitan practitioners take the majority of students, often on a regular basis (for the University of Canberra) to provide support and guidance within their daily practice. Without specialised training these practitioners may not be fully aware of the subtleties of student reflection nor the various means by which students can learn. Practitioners may heavily rely on the way they were taught, in their own pre-registration or graduate year possibly a number of years ago.

Question

With the need for quality preceptors the question is whether a tiered approach, incorporating essential elements or even shortcuts can be made to introduce time-poor practitioners into the process, or art (?) of precepting with an extended learning period.

What are the bare essentials that preceptors need prior to student contact?

References

1. National Preceptor Training Consortium An Australian national strategy for pharmacy preceptor education and support Final report July 2003 <http://beta.guild.org.au/uploadedfiles/Rural_Pharmacy/Grants_and_Scholarships/2001-856_final_report.pdf> (viewed 15 May 2007).

2. Evaluation of a national strategy and curriculum for pharmacy preceptor education and support in Australia: <http://beta.guild.org.au/uploadedfiles/Rural_Pharmacy/Grants_and_Scholarships/2002-886%20Final%20Report.pdf> (viewed 11 May 2007).

Module content

1. Introduction to Preceptor Education
2. Focus on the Student
3. Focus on the Preceptor
4. Challenge and Problems in Supervision
5. Putting Theory to Work.

Linking learners to the curriculum: curriculum planning for the 'dispersed curriculum'

Julie Ash, Anne Martin, David Prideaux, Flinders University School of Medicine

The challenge medical education currently faces is the need to deal with increased numbers of students by providing clinical education across a range of new and traditional settings. The difficulty is to provide a common curriculum with parity of learning and assessment across numerous 'dispersed' sites, each with a different mix of clinical experiences

The Flinders University Graduate Entry Medical Program (GEMP) provides clinical education through clinical placements, PBLs and workshops with a common assessment program. In 2006 an external evaluation of three rural programs and the traditional hospital program identified as a strength the 'many ways to the same end' concept, on which the year three program was based. Threatening this strength was the lack of a clearly defined curriculum as reported by students and teachers from all sites, despite (or perhaps because of) the many program booklets produced to support the students' learning. This was discussed at the school's curriculum planning day where it was agreed that a common clinical curriculum for year 3 was needed, at least in terms of core components, common outcomes and common assessments.

On this background the authors developed a project to review and redefine the clinical curriculum for the Year Three GEMP programs. The project has two main parts. The first is to agree, from an evidence base, on the common principles and language on which the common curriculum should be based. The Australian Curriculum Framework for Junior Doctors (ACFJD) provides a useful framework both to define the principles and to map the current curriculum. The process will be consultative so that a shared vision of the year three curriculum is defined. The longer term aim is to define a common curriculum that can be 'student-held' to guide learning during clinical placements at any site. Using the ACFJD potentially provides the basis of a vertical curriculum, hence 'linking learners to the continuum'.

The second part of the project is to ensure that the new curriculum is actually used. There are a number of user groups including students, teachers, coordinators, assessors etc. The most evident need is for the students to have a curriculum that usefully guides their learning at any site. To address this we not only need a clear common curriculum but we also need to understand how students (and other groups) would use the curriculum.

The presentation will cover our progress in developing the curriculum vision including the emerging common curriculum and how this maps to the ACFJD. The results of a baseline survey of the students' use of current curriculum materials will be presented. The principles of curriculum design, the feasibility of a student-held curriculum and the vertical curriculum will be points of discussion that will assist the progress of this project.

Reflective inventories: assisting health professional with reflective practice

Naomi Chapman, Newcastle Mater Hospital and University of Newcastle**, Helen Warren-Forward, Shane Dempsey,** University of Newcastle

Professional judgement and critical thinking are necessary abilities in the daily practise of a radiation therapist when assessing accuracy and appropriateness of treatment delivery and anticipating patient needs in an ever changing and advancing environment. In order to stay current with the rapidly emerging technology and evolving techniques, it is important that radiation therapists incorporate reflection into their everyday practise. Practising reflectively assists the radiation therapist to monitor their practises, encourages professional growth and currency of skills.

Journaling is one tool used to facilitate, encourage and foster insightful and reflective thinking, with an aim of developing reflective health professionals. Whilst investigating the reflective models available in the literature, it became obvious that there was little practical information available for allied health professionals to use as a guide or resource to lead them through the various stages of reflection and none in the medical radiation science discipline.

This presentation outlines the development and the piloting of inventories for health professionals to use as guides to facilitate reflective practice in varied settings including, professional reading, workshops and significant event analysis. The inventories were piloted on a group of five graduate radiation therapists over a six month period, the results of which will be discussed.

Improving health outcomes for cancer care and palliative care services: Allied Health Training and Development—Cancer Care Initiative

Simone Baker, Royal Children's Hospital, Queensland Health, **Tanya Trevena**, **Annie Reeves**, **Kathryn Whitfield**, Cancer Control Team, Queensland Health

The Allied Health Training and Development Program – Cancer Care Initiative (AHTAD) is a Queensland Health professional development program which targets Allied Health staff involved in the delivery of cancer care/palliative care services. The program was designed to provide Allied Health Professionals with an opportunity to gain knowledge of, and experience in cancer care/palliative care services. In addition, the program sought to develop and maintain clinical networks within and between Area Health Services in order to enhance service coordination and continuity of care across the state. Participants were able to choose from a range of training and professional development activities including clinical exchange, videoconferencing/audio conferencing, conference attendance and other innovative training activities eg, developing clinical leaning modules. During the 2006–07 financial year AHTAD received one hundred and thirty-nine applications and supported seventy professional development activities. In line with program objectives, all successful applicants were working in areas relevant to cancer care or palliative care. The majority of applicants were from metropolitan areas in the Southern and Central Area Health Services. However, proportionately more provincial, rural and remote clinicians were successful in receiving AHTAD funding. The majority of host sites were located in tertiary centres located in the Brisbane, Melbourne and Sydney metropolitan regions. Evaluation of the AHTAD placement by the participant, line manager and the host site is currently being undertaken. Preliminary data strongly suggest that the program has been successful in enhancing and validating current work practices, increasing confidence, improving clinical skills, increasing job satisfaction and enhancing clinical networks. Limitations of the program and recommendations will be presented once all evaluation data has been analysed.

Using the whole medical class to stimulate learning: students evaluate health information collected from patients they encounter

Marjan Kljakovic, Academic Unit of General Practice and Community Health, ANU Medical School, **Chris Kelman**, **Gillian Hall**, National Centre for Epidemiology and Population Health, Australian National University

The collection of health information is crucial for many aspects of clinical care. Medical students learn how to collect information in different contexts. For example, in the preclinical context they collect information from paper-based sources in order to learn how to critically appraise information on health and illness. In clinical contexts, medical students collect information from individual people to learn the process of diagnosis and management. In this presentation we show how medical students collect and evaluate health information from patients they encounter in order to learn population health principles of data management, clinical audit, and quality assurance. Acquisition of these skills assist doctors to evaluate their own clinical practice across their patient group and to more confidently evaluate literature for evidence based practice.

Student guided learning as a strategy to aid rural medical training

Peter G Baker, Rural Clinical School, **Diann Eley**, Rural Clinical School, **Ray Peterson**, Centre for Medical Education, UQ School of Medicine

The University of Queensland School of Medicine provides a four year graduate MB BS program, and has a Rural Clinical School with sites at Rockhampton, Bundaberg, Harvey Bay-Maryborough and Toowoomba.

At the beginning of 2007 Rural Clinical School opened a fifth teaching site at Roma, for 8 fulltime third year medical students. One of the key aims will be to provide vertically integrated undergraduate rural clinical training designed to link with entry to postgraduate rural medical training, particularly the new Queensland Health Rural Generalist training pathway.

The Roma curriculum will differ from that at other sites within the School of Medicine by placing a very strong emphasis on procedural skills

acquisition, Indigenous Health, and Interprofessional practice. It has also combined the three separate 8 week clinical rotations of medicine, surgery and mental health into a single 24 week entity in order to use the available local teaching capacity as effectively as possible. This mixing has however resulted in the loss of clearly defined teaching activities, with the risk that curriculum content and learning objectives will not be adequately covered.

To meet this challenge, it was decided to alter normal teacher-learner interactions, to enable students to guide their clinical education in order to meet training requirements. During 2007, Roma students will record and monitor their learning throughout the year in regard to coverage of curriculum content, learning objectives, practical procedures training and clinical activities. They will be expected to identify learning gaps, and advise clinical teachers as to required training needs. This information will be compared to the experiences of group of RCS students, based at Toowoomba, which provides a standard training program, and will include an evaluation of examination performance.

Results will be used to inform the clinical training program throughout the Rural Clinical School and School of Medicine.

Biography of presenting author

Professor Peter Baker is Head of the University of Queensland Rural Clinical School, and is also a General Practitioner. His current educational research interests include interprofessional education and peer based learning.

Supporting our clinical teachers: What links need to be built?

Sarah Hyde, Imogene Rothnie, Centre for Innovation in Professional Health Education and Research (CIPHER), The University of Sydney

The underlying premise of this research is that by improving the support of clinical teachers, the student learning experience in clinical contexts will be enhanced. This project reports on an investigation of the perceptions of academic support provided by the Rural and Metropolitan Clinical Schools, University Departments of Rural Health (UDRH), and Faculty of Medicine to clinicians who teach medical students as part of the University of Sydney Medical Program (USydMP).

After a review of the literature to identify support strategies being used in other centres, focus groups were conducted with clinicians at each of the rural sites—Lismore, Broken Hill, Dubbo and Orange. The information gained from the focus group discussions, and a review of the literature, was used to design a survey which was distributed to 450 clinical teachers in NSW associated with the University, with a 42% response rate.

There are nine main clinical teaching sites affiliated with the University of Sydney. Clinical teaching staff were identified as those holding academic clinical titles. Whilst it is recognised that there are many other clinical teaching staff without academic titles, this was the most convenient means of capturing the sample. Two schools chose to administer the survey themselves and self-identified their clinical teaching staff.

The results were surprising and revealed that clinical teaching staff did not desire teaching skills workshops, as is standard practice in most faculty development centres, and has been reported as one of the main support needs in the literature. Rather, improved communication of what is expected of them, what they can expect of the students, the minimum standards students are expected to achieve, and a need for feedback were the most commonly identified support needs.

The survey also asked questions about clinicians' teaching experience, the amount of time they spend with students, the amount of time they would like to spend teaching students, and their preferences for a variety of different teaching workshops. The results have also compared the support needs of rural clinical teachers with their metropolitan counterparts.

This presentation will discuss the issues arising from focus groups, the design of the survey, the survey responses, and how the results are being used to create stronger links between clinical teachers, clinical schools, and the University. It is envisaged that the results of this study will be useful for other universities and clinical schools, as well as aiding decision making and addressing gaps in the literature.

Biography of presenting author

Sarah is a Lecturer in Medical Education and PhD student investigating students' use of self-regulated learning skills in problem-based learning and clinical learning contexts. She is based at the Orange campus of the School of Rural Health and has a particular interest in evaluation, problem based learning, and rural medical education.

'Touchy feely stuff' and 'new wave fluffiness': clinician–student interaction around patient-centred issues and its influence on students' professional identity formation

Charlotte E Rees, Centre for Innovation in Health Professional Education and Research, Faculty of Medicine, The University of Sydney, **Lynn V Knight**, Department of Medical Education, Cardiff School of Medicine, Cardiff University, Wales, UK

Introduction

Nowadays, physicians are encouraged to adopt a 'patient-centred' approach to medicine. This approach is underpinned by a biopsychosocial paradigm whereby health outcomes influence and are influenced by interrelating biological, psychological, and social factors.[1] Thus, patient's perception and personal meaning of illness are highlighted.[2] However, the teaching and learning of 'patient-centredness' is challenging as students' professional identity formation continues to be influenced by a culture of medicine steeped in a biomedical paradigm.[3] The Peninsula Medical School (UK) aims to integrate 'patient-centred issues' into students' clinical learning through structured clinical feedback sessions. As students rotate through 24-week long hospital or primary care placements in their third and fourth year of study, they attend a weekly 2-hour clinical feedback session in which they present patient 'cases' to a clinician in pairs, giving them the opportunity to present and discuss relevant patient-centred issues.

Methods

The second author observed and audio-taped 27 clinical feedback sessions and conducted de-brief interviews with clinical tutors and students. The sessions covered a wide range of specialties, including surgery, palliative care and oncology, paediatrics, psychiatry, rheumatology, haematology, cardiology, emergency medicine, and neurology. Both authors are listening to the audiotapes and analysing the data from the perspective of symbolic interactionism.[4,5]

Results

Preliminary findings suggest that clinicians employ diverse terminology for 'patient-centred issues' during clinical feedback sessions and de-brief interviews. While some talk emphasised their positive attitudes towards the human sciences, other talk was distinctly derogatory (e.g. 'touchy feely stuff', 'new wave fluffiness' and 'warm and fluffy'). Patient-centred issues were covered in the majority of the observed clinical feedback sessions (including surgery) and the topics discussed were broad, including family and social support, adherence, patient education, child development and parenting, stress, work and retirement, death and dying, patient lifestyle, social deprivation and spirituality. However, the depth and quality of the discussions surrounding these patient-centred issues was variable: some tutors missed obvious opportunities to discuss complex patient-centred issues highly relevant to the case presentation such as failing to discuss addiction in a patient presenting with alcoholic liver hepatitis. Although patient-centred issues form part of the structured feedback session, students sometimes sought permission from their clinical tutors to discuss human science aspects: 'do you want the other patient-centred issues?' Furthermore, some tutors confessed they 'skipped' patient-centred issues: they believed students to be competent in that area and wished to focus on clinical issues due to time pressures.

Discussion

The relationships between students and their tutors influence students' professional identify formation: encouraging or discouraging their development as 'patient-centred' practitioners. It is vital that clinical tutors attend to patient-centred issues adequately; otherwise students may develop the impression that 'patient-centred' medicine is unworkable or not relevant in certain specialties.

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Designing an interactive virtual patient clinic with the needs of learners in mind

Lloyd Reed, Lecturer in Podiatry, Queensland University of Technology, **Julie Willems**, Doctoral Student, Monash University

The results of student surveys, focus group discussions and consultations with academic staff identified consistent challenges surrounding the experience of undergraduate podiatry students entering their clinical education studies. These challenges included variability in the nature, quality and complexity of encounters with patients, associated variability in learning opportunities and challenges for clinicians in providing adequate feedback on student performance, particularly related to clinical problem solving skills. Other issues identified as problematic were the time constraints associated with the clinic consultations, the difficulty in re-visiting the patient's scenario for the purposes of review and the need to standardise the patient interactions for the purposes of assessment.

After careful consideration of the underlying elements of clinical decision-making and the practical aspects of the student's learning needs, an interactive virtual patient clinic was developed and utilised over a five year period as a core element in the curriculum. The resource provided a media-rich learning environment, containing 20 virtual patients, each manifesting key medical and/or foot disorders. Evaluation data consistently demonstrated that students perceived this innovation to be an outstanding learning resource that addressed many of the difficulties associated with the traditional clinic environment. However, more detailed research highlighted some disparities between student perception and student engagement and a small number of students rated the resource as only moderately helpful.

An investigation of the self-perceived learning style preferences of the same student cohort, with relation to their specific virtual learning environment, took place concurrently. Judiciously used, learning styles can be employed in specific contexts to increase learner metacognition (the awareness of one's own thought and learning processes) and thus both encourage and enhance the learning process. The rich qualitative data generated further emphasised the diversity of learners and the importance of designing virtual environments which are considerate of those needs.

This presentation provides an overview of the benefits and pitfalls we encountered when using the virtual learning environment and uses the results of our research to highlight issues for further consideration and discussion.

The Extended Clinical Teaching model—a multifaceted approach to improving and sustaining general practice learning and teaching for medical undergraduates at the University of Tasmania's Rural Clinical School

Megan Rathbone, **Rose Moore**, Rural Clinical School, University of Tasmania

The Extended Clinical Training (ECT) program is run by the UTas RCS and provides a model for general practice undergraduate training that focuses on **quality learning and teaching interactions** between students and clinicians. In an environment where the number of clinicians willing to engage in undergraduate teaching is limited but the student numbers are ever increasing, this model provides a way forward that is less time based than traditional approaches and more keenly focused on the quality of the shared engagement. In this model, **inter-professional learning and the vertical integration of teaching** in general practice is promoted. This is underpinned by a developing 'community of practice' supported by the University through the Tips, Tools and Resources Program and a new post-graduate qualification, the Graduate Certificate in Learning and Teaching for Health Professionals. In place during 2006, the ECT program provides some important insights into how we can both improve and sustain teaching in community general practice for medical undergraduates. Although yet to be formally evaluated, informal student and clinician feedback in 2006 and 2007 has indicated there is strong support for the model as a way forward for learning and teaching in general practice.

The discussion will centre on the nature of each person's role within the proposed model and their potential impact on the learning of the participating student (10 min presentation underpinned by a small number of power-point slides). As well, issues relating to: negotiating a team approach, financial remuneration for the practice/individual, the physical and organisational considerations in supervising students and creating good teaching moments in general practice, will be the subject of subsequent whole group discussion.

The emphasis will be on sharing experiences and on eliciting ideas about the effective implementation of the model and possible appropriate evaluation methodologies.

B4—Learners 1

Surviving the health care environment with assertiveness skills

Natalie Wall, Joanne Joyce, University of Wollongong

Conflict is a constant feature of the health care environment, and the effective management of conflict is a skill that many people do not possess on a professional or personal level. Conflicted environments within health care impact on a variety of factors, but one issue of particular importance currently is the level of satisfaction and retention of staff. By providing beginning practitioners with the skills to improve their ability to effectively manage conflict, these issues may be addressed. Effective communication skills are an integral aspect of competence for all health care professionals, and the development of this skill to a more advanced level is required for beginning practitioners to succeed. Clinical experiences for student nurses were evaluated, and conflict situations were seen to significantly impact on their ability to succeed on clinical placement. Their inability to express themselves assertively, particularly in the context of hierarchy, was identified by the students as an issue of major concern.

As a result of this recognition of the students' needs, an innovative approach to teaching communication in the undergraduate curriculum for health care professionals has been developed. A number of strategies were implemented to develop understanding and skills in assertiveness, but one particular innovation is the use of reflective writing in conjunction with an assertiveness diary. Assertiveness is defined, they are provided with resources of situations to practice being assertive, and implement this practice within their daily life. They then examine a chosen situation, reflect on the positive and negative aspects of their response, the impact of their response on others, and goals for improvement in the future. The transition from theoretical concepts, to application of skills, and appreciation of the usability and value of these skills has translated to significant practice development for the students. Additionally, the reflective component highlighted the importance of self awareness, and its link to the impact on others of their reflection, encouraging empathic awareness. This has been structured within a theoretical framework of Bar-On's emotional intelligence, that encompasses a number of these aspects.

The participants of this small group presentation will be encouraged to brainstorm the concept of assertiveness, and develop their own self awareness with regards to their assertiveness skills. An interactive discussion will also compare and contrast the participants' insights with those of previous students, and collaborate to discuss the value of this approach to improving conflict management skills for health care professionals.

The effects of context on the marginalisation of dental students in a shared medical and dental curriculum

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The Graduate entry Medical and Dental Programs at the University of Sydney share the majority of their curricula content in the first and second years and use a problem-based learning (PBL) approach. Students from both professional cohorts attend joint lectures and laboratory sessions together on the main campus. Although both groups complete the same PBL cases, this occurs on different campuses and the groups are physically segregated for this part of the course. Anecdotal and program evaluation results have indicated negative attitudes and stereotyping between the students and staff from each group. A qualitative study was undertaken to investigate these reports. Semi-structured interviews, and one focus group, were conducted with 38 students and staff in both Faculties. Interviews were transcribed verbatim and an iterative process of interpretation and analysis was used to group data into themes and sub-themes. Dental students described a sense of feeling 'marginalised' and of being 'second class citizens'. Medical students and staff regularly questioned the relevance of the medical content for the dental students' professional careers. Organisational factors such as student numbers, orientation, admission processes and geographical location of the two schools propagated negative attitudes and professional stereotyping of students. This is despite many medical and dental students being class mates and friends in their previous degrees. Findings from this study provide evidence for the negative effects of the physical and organisational context for the socialisation of dental students. Strategies for reducing the marginalisation of dental students in this setting include improved communication between Faculties, common orientation activities, stronger social networks and physical reorganisation.

A trial of two different strategies for enhancing implementation of a workplace-based structured clinical assessment tool, the 'mini-CEX', at The Children's Hospital at Westmead

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Aim

To compare the effectiveness of two different strategies for promoting the introduction of the mini-CEX, (mini-clinical evaluation exercise), in a teaching hospital.

Methods

This is a cluster randomisation study to be held at The Children's Hospital at Westmead (CHW) in June – August 2007. Two populations will be studied:

- fifty-two final year medical students and their clinical supervisors, using the University of Sydney trial mini-CEX proforma
- fifty basic paediatric trainees and their clinical supervisors, using the Royal Australasian College of Physicians (RACP) trial mini-CEX proforma.

The parallel studies will compare uptake of the mini-CEX in those exposed to minimal intervention (basic verbal and written briefings to supervisors/students/registrars) and those exposed to a supportive intervention (comprehensive briefings and training for supervisors/students/registrars with additional personal follow-up and support). Information and training will be provided at clinical team meetings and via individual emails. Additional training and support will be provided by University and RACP personnel separately. Randomisation will be computer generated.

Outcomes

Quantitative data will be obtained by returned mini-CEX pro-formas. The number completed, length of time required for each mini-CEX and feedback comments will be collated and compared between groups. Qualitative data will be gathered via focus groups and semi-structured interviews with supervisors, paediatric trainees and students.

Background

The Mini-CEX is an assessment tool which provides a structured approach to observation and feedback to promote learning in clinical settings. It was developed in the United States of America (USA) for internal medicine boards [1] and has been adopted widely in the USA, the United Kingdom, Canada and Australia [2–4].

Each individual mini-CEX consists of a 15–20 minute snapshot of a learner/patient interaction. Clinical supervisors observe brief interactions of clinical learners with patients in different clinical settings and provide immediate feedback to the learner. The focus of the mini-CEX depends on the level of the learner and varies from basic to more complex skills involved in patient assessment and management. Multiple encounters over time provide valid, reliable measures of clinical performances. The feedback component (which is often lacking in clinical learning situations) is a positive feature of this assessment tool [5].

Although this is a valuable education and assessment tool which can be integrated into routine clinical training, uptake of the mini-CEX by busy clinicians has been shown to be logistically problematic, lack of time being cited as the commonest reason [3]. As implementation of the mini-CEX is planned in 2008 by the RACP for the basic physician training program and by the University of Sydney for assessment of medical students in clinical placements, the identification of strategies for enhancing the uptake of the mini-CEX will be invaluable.

Approval

Ethics approval is being sought from the RACP, the University of Sydney Faculty of Medicine and from CHW.

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Supporting our international medical graduates—as learners become leaders

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Hunter New England Health (HNEH) has a medical workforce of approximately 1500 staff. Approximately 20% of these are International Medical Graduates (IMGs) based across a geographical area the size of England. They are a heterogenous group, with a diverse range of experiences and expertise both clinically and culturally. They join HNEH in a range of roles, as Australian Medical Council (AMC) Graduates who are employed as interns for a year, as Area of Need Doctors, as Registrars or Career Medical Officers on temporary visas.

The Centre for Medical Professional Development (CMPD) has developed a comprehensive program for the AMC Graduates. The CMPD provides a supportive infrastructure which addresses the following components: a tailored orientation program, regular weekly education sessions, one to one tuition, voice and accent modification, mentoring and regular supervision and appraisal. The program also organises social evenings to support the IMGs and their families. While the program has been developed to specifically meet the needs of AMC graduates, any newly recruited International Medical Graduate, has in the past been informally able to access the program, this has recently been formalised in the funding agreement.

Running in tandem with this program, Teaching on the Run has been successfully rolled out across the organisation to increase the confidence and competence of medical clinicians as clinical teachers and supervisors. The Centre has also partnered Canada and three other sites in Australia to determine the effectiveness of the MiniCEX as an indicator of the level of clinical competence of the AMC Graduate.

One of the most successful aspects of the program has been that it is predominantly IMGs who provide the support to the newly arriving IMGs. Senior staff consultants, who have themselves made the journey from learner to leader provide the education sessions, supervision and mentoring. They act as influential role models sharing their stories with humour and empathy.

In a recent initiative, the Centre working closely with HNE Mental Health Team (who have a high proportion of IMGs), held consultative meetings with Doctors who are either unemployed or underemployed because they have not yet passed the AMC Exams. The key speakers were graduates of the CMPD program, interns a year before, learners on the way to becoming future leaders.

Across the organisation many of our most senior and respected clinicians have joined us from overseas. Belying the common stereotype of the 'Dr Death' scenario and rarely reported in a positive context in the press, this 'group' of doctors often perceived as potentially high risk learners, have become a league of their own as clinical leaders and educators, generously sharing their knowledge and expertise with those following in their path.

Changes in learning style preferences in physiotherapy students: a cross-sectional study

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Introduction

Evaluating the learning approaches of students in health sciences has the potential to assist educators to facilitate the educational process and identify areas of weakness within their syllabus. Few studies have examined the learning styles of physiotherapy students and those that have been completed are of poor quality. The aim of this study was to examine the learning style preferences of undergraduate physiotherapy students throughout the course to identify if there was a predominant learning style preference in each year group, and to evaluate if this changed over the duration of the degree.

Method

A cross-sectional cohort design was used. Undergraduate physiotherapy students from three year groups at La Trobe University, Australia were invited to complete Kolb's Learning Style Inventory. This twelve item questionnaire identifies the participants preferred learning style as being one of Converger, Diverger, Assimilator or Accommodator and is reported as demonstrating a high degree of reliability.

Results

200 students participated in the study including 91 first year students (mean age 18.9 years), 61 second year students (mean age 20.6 years) and 48 fourth (final) year students (mean age 22.4 years). There was no statistically significant difference detected between the gender proportions in each year level

sample with a mean of 75.5% of the total sample being female.

First and second year cohorts demonstrated a significant preference for the Converger learning style ($p<0.01$). Fourth year students demonstrated a spread of preferences across each of Kolb's four learning styles. First and second year responses were significantly different to the fourth year sample.

Discussion

Previous studies had also identified Physiotherapy students prefer the Converger learning style, but these studies had not identified differences across cohorts. The reasons for the difference in learning style preference from converger (in first and second year students) to a spread across all four styles observed in this study are unclear. Hypotheses for the changes we found include;

- 4th year students had been exposed to more diverse learning environments via clinical experience gained in later years of the course and may have developed a broader variety of learning preferences as a consequence
- 1st and 2nd year students are younger and possibly more influenced by the teaching methods than 4th year students
- sampling bias may have affected our results (a smaller sample size participated in fourth year compared to first and second year).

Further sampling of these cohorts as they progress throughout their degree will be required to assist in answering these questions.

Knowledge of students learning styles can inform teaching and drive curriculum development. Identification of the change in learning styles of students over the duration of the course may indicate further shaping of the early curriculum is required. As models for physiotherapy education change further investigation into the LSP of students is warranted.

Children with a mental illness in a general paediatric unit: meeting the learning needs of the registered nurse

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There is a general paucity of research in the area of paediatric mental illness in Australia, and in particular within the context of the general paediatric unit. Currently regional health care facilities are experiencing an increase in the numbers of children diagnosed with mental health illness who require management in the general paediatric unit. However, standardised education and protocol may not be meeting the needs of either the staff or the children in these units.

Participatory action research (PAR) was used as a framework to address practical concerns of rural paediatric nurses when caring for children and adolescents with mental illness. In the first learning cycle, focus group discussions with stake holders explored the problem situation to identify *what* and *how* learning changes could be implemented. Participants identified that increased admissions of children with a mental illness posed a problem because they were inadequately prepared to fully meet the mental health needs. Further working in a rural service they felt isolated from support and assistance. This initial focus group has served as a basis for the next action which will address these identified deficits.

Safe medication practice tutorials for final-year medical students—filling a perceived deficiency in their preparation

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Danielle Stowasser, School of Pharmacy, University of Queensland and Safe Medication Practice Unit, Queensland Health

Aim

To develop and evaluate a practical safe medication practice module which improves confidence and ability to prescribe safely and effectively.

Method

Students attending the intervention site attended eight tutorials, presented by pharmacy, medical and nursing staff. Topics included: [1] introduction to human error and medication safety, [2] taking and confirming medication histories and identifying drug related problems, [3] introduction to prescribing, [4] adverse drug reactions, [5] starting, dosing, changing, ceasing and monitoring; antibiotics, anticoagulants, insulin, IV fluids and electrolytes, [6] graded assertiveness, and effective communication, [7] discharge prescribing and communication. Students attending other sites were a parallel control group.

Results

Eighty-five students perceived the content of the tutorials as relevant to their intern year. Both the content and method of delivery were described as more practical and relevant than other medication related training to date. There was a significant increase in their confidence to prescribe; in specific high risk situations such as, anticoagulation, electrolytes and insulin when assessed before and after the tutorials. ($p<0.05$) There were significantly fewer prescribing errors made by the intervention group in the summative assessment compared with the control group.($p<0.05$) Performance in the trainee intern program at the intervention site demonstrated a significantly greater ability to identify and prevent medication errors when compared with control site. ($p<0.05$)

Conclusion

This pharmacist lead program has been well received and has demonstrated an increased confidence and ability to prescribe safely and effectively in common situations that they will encounter as interns when compared with the control students.

Interprofessional learning: a student response to the ACT Health Inter-Professional Learning and Clinical Education Project

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Background

The ACT Health Inter-Professional Learning Project is aimed at increasing the safety and quality of patient care through the development of a health care system that values collaboration and collegiality between key stakeholders[1]. This is a direct response to current health care needs where services are increasingly reliant on teams of health professionals from a varied range of health disciplines. Shared responsibility of care occurs in almost every patient's clinical trajectory particularly in the acute health sector. Recent research highlights that there has been an increasing number of patient safety issues that can be attributed to a lack of effective communication between the members of the inter-professional team.[2] One causative factor, gaining support through both research[3] and government reports[4], is that ineffective communication amongst health professionals stems from the socialisation of the different professions during education and clinical experiences. This process of disciplinary socialisation is reflected in the ACT where students of the different health care disciplines are spread across four tertiary campuses and often do not have opportunities to share educational and clinical experiences. Inter-professional learning has been touted as one possible solution where educational experiences that are shared may provide a platform for students to develop common experiences, values, language and approaches to patient care.[5]

Student response

In May 2006 students from the University of Canberra invited students from the ANU Medical School to participate in a Health Science Student Group. This group is dedicated to improving inter-

professional interaction and education between health care educational institutions in the ACT through extra-curricular activities. The primary aim of these activities are focused on the exploration of each professional culture and value system, the development of skills for teamwork and collaborative practice and to gain an understanding and respect for each others roles within the health care team. To date the group has attracted students from the disciplines of nursing, medicine, pharmacy and nutrition and are endeavouring to gain interested students from dietetics, physiotherapy, and psychology.

Implementation

In order to achieve the group's goals we plan to implement extracurricular workshops that will be facilitated by academics and clinicians who are passionate about developing inter-professional health care teams. The inaugural workshop will be presented as an innovative ANZAME pre-conference workshop where health care students will have the opportunity to work together using the humanities, in this case portrait art, as a medium to explore inter-professional observational skills. The student group is keen to discover other innovative ways of involving students in inter-professional learning. Two possible scenarios are the development of monthly case-based learning sessions and the Teddy Bear Hospital Project, organised in conjunction with the International Health Group at the ANU Medical School. In this simulated environment of role play with primary school children, students take part in a team based approach to patient care and foster understanding of hospitalisation for young children.

In similar international groups that have formed in the UK and Canada it has been found that academic support is essential to ensure students can access resources to develop and maintain the group. Although the student group is enjoying support from the educational and health care institutions, progress is slow and this is attributed to the lack of available time that students have for extra-curricular activity. It is envisaged that with the continued support of the universities, professional bodies and health care institutions, there will be opportunities for inter-professional learning within clinical placements. This will provide students with an option to develop necessary team work skills through projects aimed at enhancing services within acute and community based sites.

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Learning to use the language of clinical reasoning

Stephen Loftus, Joy Higgs, Charles Sturt University

In a recent project (Loftus 2006) the extent to which clinical reasoning is a function of language was explored. It was found that competent clinical reasoning utilises many aspects of language use, such as the metaphors and narratives favoured by particular health professions. The education of health professionals requires students to participate in, practise, and eventually master the language used in their profession, together with all the underlying metaphors and narratives, etc. In the past, little attention has been paid to this important aspect of clinical reasoning and how it can or should be taught. This presentation argues for greater awareness of the extent to which professional practice is shaped by language and for the use of professional language to have a more explicit role in the education of health professionals.

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Encouraging and managing student professionalism in the University of Sydney Medical Program

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What is professionalism in medicine?

Professionalism in medicine is based on a foundation of clinical competence, communication skills and ethical and legal understanding. This skill base underpins application of the principles of professionalism: excellence, humanism, accountability and altruism.[1] Professionalism implies a standard of behaviour that individual physicians are expected to meet as they provide their specific skills and knowledge to those who seek their counsel and is the basis for medicine's contract with society.[2] In NSW medical students are required to meet the expected standards for doctors as described by the NSW Medical Board.[3] The practice of medicine is expected to be professional by patients, colleagues and the community.

Why is a program necessary to encourage and manage professional behaviour of students?

Currently one of the main themes underpinning the University of Sydney Medical Program is the Personal and Professional Development (PPD) of students. From year 1 to 4, students are expected to know and understand the ethical basis of medical practice and demonstrate professional behaviour throughout the University of Sydney Medical Program (USMP). Various topics and teaching methods are applied in the program as well as new assessment methods which are now being developed to the extent to which students can demonstrate ethical and professional attributes during their training. However, there are times when student behaviour raises concerns outside the assessment environment. The Faculty has a responsibility to assist these students to gain insight into their actions and identify ways to help students improve their performance or conduct. There have been occasions when staff and students have raised concerns with the Faculty of Medicine about students who display unprofessional behaviours. For example:

- poor behaviour in Problem Based Learning (PBL) sessions
- lack of attendance at scheduled sessions
- inappropriate conduct and behaviour on the wards and in the hospitals
- communications on the website and examination papers
- unprofessional communications with faculty staff
- any other conduct in relation to the ethical and professional behaviour expected of a medical student in the Sydney Medical Program.

The lack of a standardised protocol for managing such students has enabled students progressing without the benefits of remediation. The lack of a formal structured program for managing and assisting students who have a problem exposes the Faculty to the possibility that graduating students will not meet the NSW Medical Board's requirements for medical practice.

The program

The Faculty has introduced a program based on a tested format used at the University of California School of Medicine (San Francisco). The Student Professional and Personal Evaluation Form has been developed from the University of California School of Medicine *Physicianship Evaluation form for first and second year students*.[4] The Medical Student Professionalism evaluation system provides a transparent and standardised method for longitudinal documentation, assessment and remediation of deficiencies in professional and personal development. The program is based around a process outlined by a protocol describing general principles, what conduct it does and doesn't cover, use of the student evaluation form, communication and remediation with the student, appeals procedures, documentation and specific outcomes within a defined period of time. Implementation of the program has occurred this year after orientation and training at each clinical campus. A formal evaluation of the program will be conducted to review its use and effectiveness in managing poorly behaving students.

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The Medical Schools Outcomes Database and Longitudinal Tracking Project: bringing health and education leaders together to plan for medical education and workforce needs in Australia and New Zealand

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The Medical Schools Outcomes Database (MSOD) and Longitudinal Tracking Project is one of the most ambitious and important projects with national and regional significance undertaken in Australia. It has the potential for evaluating outcomes of medical educations programs, assisting in medical workforce planning, and providing a valuable medical education research resource.

The project aims to establish a database comprising an agreed on minimum data set of reliable demographic, educational and career intention data to be collected about medical students commencing in one of the 17 medical programs around Australia from 2006 onwards. This database will provide the basis for short and long-term monitoring and reporting on outcomes of medical education programs. The project is funded by the Australian Government, through the Department of Health and Ageing (DoHA).

To date, the project team at Medical Deans Australia and New Zealand have piloted a commencing questionnaire in 2005 and the collection of medical schools data in 6 medical schools. The commencing questionnaire was rolled out at all 17 Australian medical programs in 2006 and 2007. The New Zealand medical schools are in the process of joining the project.

The Project has facilitated the development of co-operation between medical schools in seeking to better understand the effectiveness of their undergraduate programs, heightened their awareness of the need for and importance of a rigorous quantitative evaluation process, and provided the catalyst for creative thought and research initiatives within medical schools across the country.

While data cleaning and some coding issues are still being addressed, it is possible to report some preliminary results from the first survey offered to all medical students' in Australia. In 2006, 2154 of the 2515 enrolling students completed the commencing questionnaire, representing 85.6% of the total.

This Small Group session will

- present a selection of the summary findings from the 2006 commencing students' questionnaire;
- discuss some of the issues which are currently being addressed to prepare the database for wider use by participating medical schools; and
- explore with participants the opportunities and mechanisms for accessing and making best use of the database for advancing medical education research in Australia and New Zealand.

Academic leadership at the course level: a survey of development needs in the health sciences

Richard Ladyshewsky, Graduate School of Business, **Sue Jones**, Health Sciences, Curtin University

Higher Education in Australia has increased its focus on quality teaching and learning. Course coordinators (CCs) carry much of the leadership responsibility for ensuring course quality, however, this responsibility is often accompanied with limited line management authority which makes implementation actions more difficult. The role is often seen to have an adverse impact on personal teaching, research and promotion. Yet, a diverse set of leadership and pedagogical capabilities are required to ensure courses are of good quality and university reputations are preserved.

Effective academic leaders demonstrate leadership in teaching and research, are adept at collaborating and motivating others, and have good interpersonal skills. Academic leadership is also very relationship based, and building and maintaining relationships is critical to success because of a lack of formal authority over others. Leaders within this sector must create interdependence with their team and share power to invoke change.

This study examines the leadership development needs of CCs in Health Sciences at Curtin University of Technology. A 12 item survey was distributed to a total of 55 CCs. Of this cohort, 19 CCs completed the survey (34.5 per cent). The survey utilised a 5 point Likert scale with 5 being a high priority, and 1 being a low priority. The questions were developed in part from the literature and from the experience of the research team.

The top five development priorities identified by CCs were: establishing and maintaining quality assessment practices (73.6 per cent); ensuring that assessment practices align with the unit and course learning outcomes (73.6 per cent); student management issues (63 per cent); providing a positive and supportive environment for the teaching team (63 per cent); and clear and consistent understanding of the role and responsibilities of the course coordinator (57.9 per cent). The sixth and seventh priorities continued to focus on the application of learning outcome frameworks and the building of a high performance team respectively.

Course coordinators were also asked to identify their three biggest challenges using open ended comments. Seventeen (17) respondents provided feedback (89 per cent). Themes that emerged most strongly from this feedback included: lack of time to complete duties particularly with respect to course management, administration and review, administrative complexities, student management issues and the uncertainty about the scope of their role.

From the results of this survey, and the supporting literature, it would appear that universities, if this survey is transferable, cannot be complacent about the recruitment, development and support that are needed for this critical leadership role. Course Coordinators require two strategies to support their performance. The first is the development of a robust role description for this position and appropriate time to complete the associated duties. Given the discipline specific knowledge of this group, the second strategy is focused on development opportunities to build leadership and management capabilities, along increasing understanding of educational pedagogy.

Universities are increasingly becoming more complex and the push for measurable indices of course quality, with links to government funding, are elevating the importance of the CC role. Attention to the developmental needs of this group is central to course quality.

Acknowledgment

Support for this project has been provided by the Carrick Institute for Learning and Teaching in Higher Education Ltd, on initiative of the Australian Government, Department of Education, Science and Training. The views expressed in this project do not necessarily reflect the views of the Carrick Institute for Learning and Teaching in Higher Education.

Development and implementation of an on-line Master of Medicine Course: what works, what doesn't?

Anne Morris, Wendy Oldmeadow, Dianne Campbell,
University of Sydney

Background

In June 2006 the University of Sydney launched an e-learning course work Master of Medicine program. The fundamental design of the program was to have a semester based, modular program that was flexible, largely distance based and allowed for students to choose units from a range of disciplines. WebCT was the on-line platform chosen for delivery of the course. The Master of Medicine (Paediatrics) is aimed at medical graduates with an interest in paediatric medicine but not necessarily at the level of consultant paediatrician. The Paediatric units are designed as stand alone units, each comprised of a series of modules (4–6 modules over 13 weeks). Each Unit is calculated to account for 130 course work hours. The units consist of a combination of direct on-line work with participation in on-line discussion boards, case scenarios with automated question and answer sessions, formative quizzes and self-directed work.

Aim of this session

We will present our experience of developing and implementing the Master of Medicine (Paediatrics) focusing on development of curriculum and challenges in the use of the on-line Discussion Board facility as a learning environment for students and teachers. We will discuss the pitfalls associated with creating an e-learning masters course and describe our experience to date in terms of student activities and assessment, the roles of the course designers and on-line facilitators.

Development of curriculum

We will briefly outline the process of development of the current units of study with examples of self-directed learning cases, discussion board topics and assignments.

Each unit of study was mapped using the principle of constructive alignment. (Biggs) It is a predominantly clinically based, adult learning environment, with case scenarios as the trigger for each topic. Clinical cases were designed to act as a spring board to allow students to explore important clinical features, diagnostic strategies and pathophysiological mechanisms related to the topic. We aim to facilitate students in updating their

knowledge with respect to latest research and evidence and to develop the skills to integrate content knowledge into management of clinical problems. There is a course wide emphasis on presenting and discussing evidence based management.

Discussion board learning activities

One of the most challenging aspects to content writing has been formulating discussion board topics that test the students' ability to search the literature, write a summarised response to a question which in addition provides a starting point for an interactive discussion between students and facilitators. We aim for the discussion board to allow students to learn from each other as well as the facilitator. Having now run four units of study we are able to critically review the discussion board topics in terms of the quantity and quality of discussion generated which will inform further course development. We will present some examples of discussion topics and actual discussion postings, with suggested improvements, as a demonstration of the iterative process of ongoing unit of study design.

We welcome comments and suggestions from others with experience in on-line learning both as facilitators and students with a view to guiding those likely to develop similar on-line education tools within medicine.

Unleashing the hidden link for learners: a structural-guided general medicine program for final-year medical students, developed and delivered by junior doctors

Kwang Chien Yee, University of Tasmania and Royal Hobart Hospital

Introduction/background

The provision of adequate clinical education for medical students is increasingly difficult due to the significant influx of medical students in recent years. Junior doctors form a large pool of untapped resources to support the education of medical students. Importantly, this happens with a shift in educational philosophy from didactic teaching to problem-based self-directed learning. Problem based learning requires significant training of tutors. Furthermore, there are debates regarding its superiority in preparing students for their junior medical years. It has been suggested that the knowledge and skills learnt through self-directed learning might not reflect contemporary practice. We piloted a hybrid teaching method in 2006 in order to better prepare final year students for their internships, which might require less training of the tutors. This session presents that method for discussion.

Purpose/objectives

This session aims to describe our structural-guided program and the evaluations of the program. It will then discuss the pros and cons of this method, as compared to self-directed and didactic learning. Participants will be invited to debate the merit of using registrars as educators for final-year medical students and the essential elements of their education. Finally, the merit of this structure-guided program for junior doctors to participate in medical student education will be discussed.

Methods

We utilise a structural-guided hybrid teaching method, which has five steps:

1. Start with simple messages by the tutor.
2. One of the students presents a real-life clinical case related to the topic.
3. Dynamic discussion and debate about the case, from the perspectives of the patient and the disease.
4. Dynamic discussion and debate about the issues surrounding the case: evidence-based vs patient centred, patient-empowered care
5. Summary at the end to send some clear take-home messages by the tutor.

This tutorial program covers acute medicine, chronic medicine, professional and personal development. Evaluations were obtained through quantitative survey and qualitative open-ended interview questions.

Results

Our evaluations showed that the program was well received by the students. Visual analogue scale was utilised in the quantitative survey with a scale of 1 to 5, 1 being very bad and 5 being very good. The mean results are shown below regarding various teaching activities.

Activities	Stimulate my interest	Educational	Relevant to my need
Consultant ward round	3.3	3.6	3.1
Registrar ward round	3.8	3.9	3.8
Grand round	4.0	4.1	3.3
Case-based learning.	3.6	4.0	3.9
Self-directed learning	3.4	3.8	4.0
Practice procedure	4.4	4.4	4.6
Structure-guided tutorial	4.6	4.7	4.7

The qualitative analysis of the program revealed that the tutorial was thought to be useful as it was not threatening or intimidating. Furthermore, students found the guided learning method more efficient and effective than self-directed learning. The explanation and clarification during the tutorials provided much needed direction for future self-directed learning.

Conclusion

The structural-guided tutorial program is a successful way to link registrars to medical students, which might not only unleash the hidden teaching potentials of junior doctors, but also provide good learning experiences for medical students.

Graduate outcomes alignment to the Australian Curriculum Framework for Junior Doctors

Rowena Scott, Sandra Carr, Diana Jonas-Dwyer, Zarrin Siddiqui, Fiona Lake, Faculty of Medicine, Dentistry and Health Sciences, University of Western Australia

Vertical integration of curricula across the levels of medical training ensures coverage of important issues, may prevent duplication and allows progressive development of knowledge, skills and attitudes. Many medical schools have developed curriculum maps as part of curriculum development and for accreditation with the Australian Medical Council. With the *Australian Curriculum Framework for Junior Doctors* (JDCF) launched late 2006, it is important to identify elements and themes in common and differences between the JDCF and undergraduate medical curricula. The purposes of this paper are to present the results of aligning the UWA medicine course with the JDCF and explore some of challenges and opportunities that exist for undergraduate education and early postgraduate training.

The University of Western Australia (UWA) Medicine curriculum has 18 graduate learning outcomes. The learning outcomes demonstrate progression from Year One to the Sixth within four themes: Scientific Basis of Medicine, Doctor and Patient, Doctor Health and Society and Personal and Professional Development. The learning outcomes describe observable, measurable, demonstrable actions or skills and specific levels of thinking so that they can be assessed. How the learning outcomes are addressed and assessed is evaluated through regular curriculum mapping. Unit level outcomes are aligned with Year and Graduate Level Outcome statements in conjunction with a review of course and unit documentation and of teaching and learning experiences. Thus, the process of curriculum mapping is an important part of ongoing local curriculum development.

The JDCF comprises 63 topics within categories in three major areas: clinical management, communication and professionalism. For every topic a set of three capabilities describing knowledge elements, skills or behaviours have been defined. As yet how the curriculum will be implemented or assessed has not been developed.

Curriculum mapping has shown that many areas across the framework are well aligned, although there are differences in how the level expected is detailed. This is important in defining how learning programs will be developed and assessed in the early postgraduate years and how will the post graduate trainers know which skills are well developed at graduation. For example, the need for undergraduates and postgraduates to develop skills in recognising their personal limitations, learning and practising the skills of self-reflection and how and when to access support is detailed in both. Differences have also been identified, with UWA recognising as a result of this process the need to add an outcome strand related to the doctor as educator. Conversely, the UWA outcomes contain a theme on scientific basis and evidence base of medicine which is not well detailed in the JDCF.

A closer exploration of the alignment will require drilling down to details of learning opportunities and assessment to achieve true vertical integration.

Biography of presenting author

Dr Rowena Scott is a Lecturer (Curriculum Design) on the Curriculum Map and Outcomes Database project in the Education Centre of the Faculty of Medicine, Dentistry and Health Sciences, University of Western Australia.

C1—Linking 1w

Advancing interprofessional learning in clinical education settings: models, challenges and possibilities

Ian Brade, Monash School of Rural Health, **Carlyn Brett-Schneider**, Monash School of Rural Health, **Mollie Burley**, Monash Department of Rural and Indigenous Health, **Natalie Radomski**, Monash School of Rural Health, **Lyn Faulks**, School of Nursing and Midwifery, Monash University, **Bev Blanch**, Division of Nursing and Midwifery, Latrobe University

Selected members of SPECTRUM Project Advisory Group and SPECTRUM Interdisciplinary Working Party will also be invited to contribute to the workshop presentation.

The Support Program for Education and Clinical Training of Rural Undergraduates at Mildura (SPECTRUM) Project is a Department of Human Services (DHS) initiative funded for implementation in 2006.

Background

Establishing the kinds of cross-sectoral partnerships, change management structures and collaborative models of learning needed to implement contextualised interprofessional clinical placement initiatives within/across different undergraduate health education programs and health service settings is no simple task. Although the potential educational benefits and curriculum synergies related to Interprofessional Education (IPE) may be recognised and indeed, actively pursued by clinical educators and students working at the 'local course level', the negotiation of clinical placements still tends to occur through independent organisational agreements. These often competitive arrangements may restrict the development of sustainable interprofessional learning initiatives and collaborative curriculum innovations. To address these issues, a DHS funded *Support Program for Education and Clinical Training of Rural Undergraduates at Mildura (SPECTRUM)* pilot project was implemented in 2006–07. This ambitious project engaged clinical education providers and health service stakeholder groups from the Mildura region of Victoria in a year long, collaborative networking and curriculum planning process. The Spectrum Project was designed to support the development of more sustainable clinical placement models and IPE curriculum innovations across the different health disciplines/courses.

Purpose and objectives of the workshop

Drawing on research and evaluation data generated as part of the SPECTRUM Project the objectives of this workshop are to:

- describe the distinctive features of the SPECTRUM model of clinical placement collaboration and IPE curriculum innovation
- analyse the educational principles and practices used to develop, implement and evaluate the SPECTRUM IPE clinical learning exemplars
- identify and discuss the curriculum, learning and quality assurance issues that need to be considered to advance connective models of interdisciplinary and interprofessional learning in clinical education settings.

Workshop sequence and activities

The first part of the workshop will provide an overview of the SPECTRUM IPE model, key project implementation 'turning points' and collaborative outcomes. This will be followed by a demonstration, structured group discussion and small group analysis of one of the IPE 'continuum of care' curriculum exemplars piloted as part of the Project. Participants will be invited to share their own IPE curriculum development experiences and to consider how the SPECTRUM model of clinical networking and curriculum collaboration could be extended, adapted and contextualised for use within/cross different clinical education settings.

C2—Linking 2

What do facilitators do to make scenario-based learning sessions effective learning experiences for students?

Alix Magney, **Leah Bloomfield**, **Husna Razee**, School of Public Health and Community Medicine, Faculty of Medicine, The University of New South Wales

Background

UNSW has recently introduced an integrated medical curriculum with scenario-based learning (SBL) as the central organising component in Phase 1 (the first 2 years).

This qualitative study is the second of two related studies into Phase 1. The aim is to investigate students' perceptions into how facilitators make SBL sessions effective learning experiences. We have already conducted a quantitative study into the

influence of SBL facilitators' characteristics on students' achievements.

Summary of work

Self-selecting students from Years 1, 2 and 3 completed an on-line open-response survey (N=280). The questions asked students to reflect upon a time when they were most involved in learning, least involved in learning and to describe what the SBL facilitator was doing at the time to assist their involvement. Students were also asked to reflect on the contribution of SBL sessions to their overall learning; how their perceptions of SBL sessions have developed over time, and whether or not any of these changes were influenced by the facilitator.

Summary of results

The data are currently being coded for analysis.

Conclusions

Results will be used to guide SBL session design, SBL teaching/learning activities and the facilitator manual.

CASE: a Clinical Approach to Structured Examination

Daniel Lin, Karen Garlan, Western Clinical School, University of Sydney

The *Medical Long Case* is traditionally been used as a standard for assessing clinical skills such as history taking, physical examination, formulation of diagnosis and management issues. Year 3 medical students are examined on their clinical skills by performing and presenting a 'long case'.

Our program, *CASE (Clinical Approach to Structured Examination*), is an integration of various teaching methods aimed at improving clinical competency and personal confidence that is linked to a structured assessment and evaluation system. CASE was developed as a result of feedback from medical students on how to improve competence and confidence in preparation for the summative long case examination.

Format

The *topics* covered are Cardiology, Endocrinology, Gastroenterology, Geriatrics, Haematology, Immunology and Allergy, Neurology, Oncology, Renal, Respiratory, Rheumatology and Surgery. This begins at the beginning of the year and runs on a fortnightly basis up to the long case examination. The topics are integrated with the problem based learning (PBL) topics.

Teaching (SEE)

The 12 *teaching sessions* of approximately 90 minutes divided into a number of sections.

- *Short case examination approach to the system.* This is a lecture style format presented by a Consultant (Teacher) in the specialty area.
- *Demonstration with a* 'real' *patient.* Students observe a Registrar (Teacher) taking a history from a de-identified hospital patient and learn how to interview and communicate.
- *Problem identification and management plan.* While the registrar is preparing his/her presentation a facilitator (Educator) assists the group to develop a problem list and management plan.
- *Case presentation.* The registrar (Teacher) then presents his/her findings to the group and discussion about the medical condition ensues.
- *Group discussion.* The facilitator (Educator) then concludes the session by highlighting and emphasising the integration of knowledge, clinical experience and observations.

Practise (DO)

- *Long case presentations.* The students are requested to complete and present one long case per week of their Integrated Clinical Attachments (ICAs) using the feedback marking sheet similar to the one used in the final examination.
- *Mock Examination.* A mock examination is organised one month before to simulate as real as possible examination conditions.

Development of resources (TEACH)

Each year since the development of the program, students are asked to contribute as a group some useful resource such as a written study/summary notes covering all the common medical conditions available on the internet via a secure login (www.case.med.usyd.edu.au). Notes includes

- syllabus and knowledge based content
- examination format, marking sheets, timing and presentation
- short case examination summaries and presenter's slide presentation
- long case examination summaries
- medical education articles
- long case anxiety and performance

- this year the group is compiling a database of clinical images of common medical and surgical conditions.

Feedback (EVALUATE)

- *Students.* The students are evaluated pre, mid and post program on competence and confidence relating to aspects of the long case. In the future an on-line tool for ongoing assessment and feedback on the individual performance of the student will be developed.
- *Teachers.* The teachers are evaluated informally on their teaching performance.
- *Program.* A focus group with students is conducted at the end of each program year to look at ways to improve the program for the following year.

Linking

- Students—Year 3 Medical students
- Patients—'Live' from the wards
- Teachers—Clinicians ie Consultants and Registrars
- Educators—Medical educators and evaluators
- IT—Support for teaching resources and publication on the web

Reflective practice—cross-professional linkages

Helen Malcolm, Rural Clinical School, University of Tasmania

Current medical, health and education courses attempt to teach more than the facts and science of medicine, education or other disciplines; they aim to produce thinking educators and clinicians who can better care for themselves, their students and their patients. One of the mechanisms in achieving this aim is reflective practice—the art of reflecting on something experienced or observed, to enable deep learning and a resultant change in approach. The outcome is an improved learning experience for both student and teacher, better patient care, greater self-care and a decreased chance of being criticised or sued!

Theological reflection is a similar mechanism used in church ministry to lead people to new approaches and the models and techniques used here can inform reflective practice in education and health.

The presentation will outline the common ground and overlap between educational, medical and theological methods of reflective practice and the different models that can be applied.

The discussion will involve analysis of 3 or 4 examples drawn from the educational or clinical experience of participants, using different models or processes of reflective practice. Participants should come away with new methods of, or insights into, reflective practice to apply with their students and themselves, to give them a firmer idea of how to enhance their own learning and teaching, while being open to what their patients, students and colleagues can bring to the practice of health care and education. They will be able to draw on knowledge/tradition, experience, beliefs and culture and use reflective practice to inform decisions about their actions into the future.

C3—Linking 3

Clinical competency in four weeks: mission impossible?

Jennie Scarvell, Coralie McCormack, Lynne Johnstone, University of Canberra

Context

In the current environment of limited and rapidly diminishing clinical resources, clinical programs are re-evaluating how to ensure the most effective clinical learning is achieved in the shortest time.

Education has moved away from demanding certain prescribed clinical hours within training programs towards demanding competency as a result of clinical experience, but we don't really know how to plan placements that will ensure students attain competency. In the meantime, resource limitations, particularly in terms of available workforce, means we are challenged to develop new approaches to clinical learning and teaching within programs of pre-service education. Clinical education programs need to maximise the effectiveness of learning, so clinical competency levels do not suffer as a result.

Aims

To facilitate clinical education on clinical sites in order to maximise learning that can occur.

Project description

The School of Health Sciences project involved Nursing, Physiotherapy, Pharmacy, Nutrition and Dietetics, Sports Sciences and Biomedical Sciences.

Initial issues were identified using a survey of students' clinical experience to inform discussion as well as pre-test measure, and issues and needs from clinicians and school staff raised by a Reference group.

A series of workshops was held designed to improve clinical learning and teaching skills, fostering an interprofessional clinical education community. The first workshop entitled 'Introduction to experiential learning' introduced participants to theory and practices to support learning in the workplace, including recognising learning at work; using reflective; using specific communication techniques to give and receive feedback; and how to set up peer learning. The second workshop: 'Context: utilising available resources for learning' extended the skills of participants in the areas of assessment, interdisciplinary work practices where student learning can occur; discussed the different teaching practices associated with three selected models of workplace learning: mentorship (or preceptorship), peer learning, and communities of practice. Workshops were lead by health professionals from Physiotherapy, Nursing, Pharmacy and Nutrition and Dietetics and attended by a similar interprofessional mix. Workshops were evaluated by participants and the student survey.

Outstanding issues

- Quality not quantity—To what extent can we ensure that the best learning experiences and depth of learning are achieved from every patient encounter, rather than just seeing x number of patients, or complying with x number of hours?
- How do we balance powerful motivators such as student directed learning with health care service delivery?
- How do we best prepare students for learning in an environment where their engagement will so strongly influence their learning, with little room for compromise?

Acknowledgments

Laurie Grealish, Claire Bekema, Deborah Carrera, Ann Ertzen.

THURSDAY

Medication safety in undergraduate nursing programs—the medication administration experiences of final-year nursing students in the off-campus clinical setting

Kerry Reid-Searl, Central Queensland University

Undergraduate nursing students practice medication administration in their every day clinical experiences in health care settings across the nation. To date student experiences in administering medications in this context has not been clearly understood. This paper reports on a grounded theory study which has examined the medication administration experiences of 29 final year nursing students from a Queensland university. The paper will address the research process and the resulting substantive theory of which supervision is a core category. This substantive theory offers an explanation of student experiences which should raise concern for those involved in both undergraduate nursing curriculum preparation and educators who are involved with nursing students within health care settings. The paper concludes with recommendations aimed at improving medication safety.

An integrated surface anatomy course?

Sue Runciman, **Bren Gannon**, Department of Anatomy and Histology, School of Medicine, Flinders University of South Australia

Some students entering our graduate-entry medical course have little or no anatomy knowledge. Clinical examination skills and anatomy are taught concurrently in a systems-based approach, but students have little time to consolidate anatomical knowledge applicable to the clinical setting. In the first year we offer a 10 week (25hr total) surface anatomy elective to:

- develop a knowledge of surface anatomy and underlying structures
- practise palpation and percussion techniques
- practise basic examination techniques
- practise effective person to person interaction skills.
- practise presenting and demonstrating information to student peers.

A staff member introduces the surface anatomy of the region. Using written instructions, students work

in pairs, identifying and palpating landmarks and drawing underlying structures on each other with theatre pencils. Pots, plastic models and prosected wet specimens are on display. Students present surface anatomy topics to their peers 3 times during the course and complete a final 20 minute viva voce exam. Assessment is based on attendance, participation, presentations and the viva examination. We do not include reproductive anatomy for the sake of personal privacy.

Students report that the 'hands on', interactive, live model approach with direct relevance to clinical examination enhances their motivation, learning and understanding of human anatomy.

C4—Learners 1w

Using simulation for competency assessment

Jennifer Weller, University of Auckland

Learning outcomes

At the end of the session participants will be able to:

- identify appropriate uses for simulation in assessment
- construct a reliable assessment
- create an assessment relevant to the real world.

Introduction

The move to outcome based medical curricula and the push for demonstrated competency is driving the search for assessments that can reliably measure these outcomes and competencies. Ideally this would happen in the workplace, but realistically it is often impossible to devise a reproducible and fair assessment of competencies in the clinical environment.

This has encouraged the development of assessments using models and simulators, to approximate real life performance. Examples of use of simulation in competency assessment include the Objective Structured Assessment of Technical skills where trainees rotate through multiple stations performing elements of surgical tasks on models (1); the OSCE for Fellowship of the Royal College of Anaesthetists incorporates simulated anaesthetic emergencies (2). The proper place of simulation in competency assessment is unclear, and current initiatives may be ad hoc and unsupported by evidence.

The following questions will be addressed in the workshop:

- What can simulation add to existing assessments?
- Is simulation reliable as an assessment tool?
- Do simulator scores predict real world performance?

Relevant literature will be presented and the group engage in exercises based on the example of Jo, the anaesthetic registrar, assessing his ability to manage medical emergencies. Participants will identify how simulation could be reliably and usefully incorporated into competency assessments in their own professional domains.

What can simulation add to current assessments?

Discussion points:

- Value in formative assessment: observable, repeatable, opportunity for deliberate practice.
- Alignment of the learning outcomes with teaching methods and assessments.
- Curriculum mapping: where is simulation the most appropriate method for both teaching and assessment?

Is simulation reliable as an assessment tool?

Health professionals are expected to competently respond to medical emergencies, but this competency is difficult to assess. Emergencies can't be scheduled, standardised or repeated, and the patient takes priority. However, using simulation, crises can be made to order. Literature on psychometric properties of simulation-based assessments and generalisability theory (3, 4)suggests considerable work must be done to establish a reliable test format, and multiple cases are likely to be required.

Discussion points:

- Defining reliability
- Errors in an assessment
- Standard setting
- Borderliners

Do simulator scores predict real world performance?

Reliability is a prerequisite for validity but does not imply validity. Examples of research into validity

include comparison of oral vivas to simulations with similar case material (5), comparison of simulation-based assessments in the Anaesthesia Boards examinations with other test scores (6), and comparison of scores for endourological skills of senior and junior residents on a virtual reality ureteroscopy simulator (7). Anastakis et al compared performance on a urological simulator with performance using a human cadaver, making the assumption that the human cadaver was a valid model for the operating theatre (8).

The group will be set the task of designing a study to measure the predictive validity of scores for performance in emergency care in the simulator.

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Clinical teachers learning from patients and students about educating to care

Anna Janssen, University of Auckland

In this interactive, supportive and thought-provoking workshop attendees will explore a fundamental area of clinical education: that of person-centred care and communication. The evidence base for this workshop will include recent research into the reflections of people who are dying and their families on their experiences of care, as well as students' learning needs in these and related areas of care. Recent local and international research shows that there is a recognised need to improve the ways in which medical education prepares doctors to care for people who are dying (Fraser, Kutner & Pfeifer, 2001; MacLeod, 2001). It is critical that medical education prepares doctors not only to attend to someone's disease but also to care for the person who is suffering and their loved ones. This requires doctors developing the ability to listen and relate to the person as an individual, rekindle a sense of hope in the person's life, and to care for oneself as a health care professional. These are all skills that are important to a range of other clinical contexts and can be promoted in a variety of ways.

Participants will reflect on their own approaches to and concerns around engaging in, and teaching about, quality person-centred care in challenging clinical contexts such as end-of-life care. They will explore barriers to learning to care from the perspectives of students and teachers and potential ways to overcome these, based on evidence from health care consumers, students, and models of clinical education that have been developed locally and internationally (Janssen, MacLeod, & Walker, 2007). Participants will investigate how these potential interventions relate to their own educational contexts. They will identify which interventions are of likely benefit to them and discuss practical steps for implementation.

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C6—Learners 3

Creating assessment that students can use to drive their own learning

Denese Playford, Harriet Denz-Penhey, Campbell Murdoch, The Rural Clinical School of Western Australia**,** University of Western Australia

Student learning needs rarely drive assessment. Instead, most assessment is driven by the academic need for valid measures of competence which allow normal curve distribution of grades, which reliably identify students who are borderline or below expectations. Laudable though these criteria are, students' learning needs are not considered.

Criteria for learner-driven assessment include that it: clearly links with the students' learning program; gives feedback which is specific enough to guide subsequent learning; is provided at critical learning points; is appropriate to the students' stage; and that it is clearly linked with teaching resources. Additional criteria becoming increasingly important for students crossing national borders for prevocational and vocational training is the subsequent transportability of their assessment portfolio for recognition of prior learning and identification of ongoing learning needs.

The learning portfolio developed for the Rural Clinical School of Western Australia (RCSWA) represents one example of a learner-driven assessment portfolio. It begins within the first week of contact, through a health-capital written piece summarising their orientation, and continues for the following 40 weeks with a phase of formative assessments followed by a matching phase of summative assessments. The phase of formative assessment gives weekly standardised clinical feedback using mCEX, which enables students to identify their own progress towards clinical goals, regular log-stimulated discussions, which allow students to identify learning issues from their own clinical encounters, and observation of required clinical skills, which permit students to set goals for their subsequent clinical experience, and videotaped consultation which allow students to reflectively examine their own performance. The formative assessment phase finishes with a formative OSCE and formative long case. The ensuing weeks continue with the same assessments that are now given graded feedback so students can appreciate their performances relative to criterion set for their stage of learning. Students report that they use RCSWA assessment portfolio to guide their acquisition of knowledge and performance skills.

Biography of presenter

Denese Playford, PhD, is senior lecturer in medical education for the Rural Clinical School of Western Australia. She has most recently been involved in the creation of a common curriculum for UWA and University of Notre Dame Rural Clinical School, and the development of rural specialisation for the faculty of medicine, UWA. She has been engaged in health professional education in rural and remote locations for the past 6 years, including a wide range of interprofessional learning experiences.

Learning from performance assessments—results of a study on the Mini-CEX

Kichu Nair, University of Newcastle**, Heather Alexander,** Griffith University**, Barry McGrath,** Monash University**, Ian Frank,** Australian Medical Council**, Gordon Page, George Pachev,** University of British Columbia

We have evaluated the utility of the mini-CEX as an assessment tool for International Medical Graduates (IMGs) in three states of Australia, as part of a larger collaborative study conducted in Australia and Canada.

A valid, reliable and feasible system is critical for assessment of clinical performance in clinical training. Traditional assessment techniques have significant disadvantages. Ward ratings are often based on limited observations (Streiner, 1985); written tests have poor face validity and do not assess patient interaction (Elstein, 1993). Oral examinations assess decision-making but not data gathering or communication (Norman, 1993; Muzzin 1985).

Australia has become increasingly reliant on International Medical Graduates (IMGs) in the medical workforce. The Confederation of Postgraduate Medical Education Councils' national Scoping Study (2004) reported on the education and training available to IMGs in Australia. Assessment is seen as a critical issue in that report, which calls for uniformity in standards of assessment for entry to work and flexibility of an assessment scheme '*tailoring it to the skills and needs of OTDs and the demands of the workplace…*'. The Mini-CEX has the potential to meet this need.

The mini-CEX was originally developed by the American Board of Internal Medicine (Norcini et al

1995). This is by direct observation of the trainee in a focused, brief clinical encounter followed by immediate feedback. Over the period of time, a variety of skills can be observed by multiple examiners. The assessment is recorded in a rating form. The form has high internal consistency and reliability (Durning et al 2002).

We will report the data on the results from 209 mini-CEX assessments of IMGs in three states of Australia. The psychometric analysis shows a high reliability with 10 encounters. The average time spent observing an examinee was 19.8 minutes and the average time for feedback was 12.3 minutes. The evaluation data collected from IMGs and assessors indicates that this form of assessment is feasible and that the feedback provided is valued. We will present our findings from this study to stimulate discussion about:

- the feasibility of this instrument
- its potential for learning from assessment through the incorporation of feedback
- the need for academic development and administrative support for its implementation.

We will discuss our experience in this session.

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Cross-cultural competencies and challenges: understanding Islam, recommendations for teaching tertiary international and local Muslim students

Judith Amed, Faculty of Medicine, University of Sydney

Rationale

The provision of educational services across international boundaries has become one of the world's fastest growing industries. Out of the 2 million tertiary education students studying abroad, Australian universities in 1998 enrolled 128 906 international students which escalated to 303 302 in 2003 (OECD). With the competitive nature of the globalisation of education, universities are marketing their campuses to increase the international status of their facilities, quality of education and services. The Saudi Arabian Ministry of Higher Education (MoHE) is a major player in sending its students abroad. This year according to the Australian Education Institute (AEI 2007) Australia is to receive 1200 scholarship students, from the estimated 7000 Saudi Arabian student sent overseas to study this year. The Saudi Arabian Government is offering these students this opportunity through the King Abdullah bin Abdulaziz Scholarship Program as part of its National Policy aimed at encouraging and increasing the educational standards of its nationals. Asmar (2000) in her 1999–2000 survey of 13 Australian universities found that, services and facilities provided for Muslim students and staffs were minimally in existence, regarded as only adequate or not available.

'There is very little published material available on Muslim university students in Australia and elsewhere' (Asmar 2000 p.139) hence the identity of Muslim students and their daily religious requirements is often misrepresented or largely unknown. Muslim tertiary students often feel uncomfortable discussing these issues with a non-Muslim (Akbarzadeh 2000), an Australian-Muslim researcher would be best suited to enter the field and would not be seen as a threat to their status or religion.

Vignette

In 2006, the University of Sydney and the Kingdom of Saudi Arabia devised the *Saudi Health Science Project,* entering into an agreement to cater for undergraduate scholarship program students. The program provides the Saudi Arabian students with English for academic purposes and Tertiary Foundation preparatory course to enable the students to enter the undergraduate Medicine and Health

Sciences courses at the University of Sydney. In 2006 the project commenced with 60 Saudi Arabian students and 200 students will be entering the program in 2007.

Biography of presenter

At present Judith is a full time PhD student with the Medical faculty at the University of Sydney. She is on leave as a secondary Deputy Principal for an independent private college. As well as being a passionate educationalist with a wide variety of teaching experiences, Judith has also held managerial positions in private and corporate business. She has worked as an Education and Corporate Consultant and was a General Manager for a multi million dollar company. The inclination to choose her PhD research on the Saudi Arabian project was influenced by Judith's extensive experience with Islamic communities. Optimistically a greater cross cultural competency appreciation and understanding of Muslim students, both international and local, can be achieved as a result of her findings.

C7—Leaders 1w

Patient safety education: linking theory with reality through leaders and learners

Kwang Chien Yee, University of Tasmania and Royal Hobart Hospital

Introduction/background

The Australian Quality in Healthcare Study demonstrated that 16.6% of hospital admissions were associated with adverse medical events. While there has been some progress in medical errors management over the last 10 years, it is now widely recognised that one of the major barriers to achieve safer health care is the lack of clinical leadership and safety culture among practising clinicians. It is also recognised that the education and training of young practitioners during their undergraduate and prevocational years, plays a pivotal role in the creation of a culture for safe practices. The Australian Quality and Safety Council has published an education framework for patient safety education recently, which has assisted Australia in becoming a leader in the field of patient safety education.

There are, however, many issues related to the development of patient safety education for medical students and prevocational trainees. What are the major principles which should be covered in the curriculum? What are the learning objectives? What are the best methods to deliver the curriculum? Who should assist in the delivery? Are there any themes which are more appropriate to be delivered during undergraduate medical education? Should consumers be involved in the process?

Purpose/objectives

By the end of this workshop, participants will be able to achieve the following objectives:

- an understanding of the contemporary principles and practices of patient safety
- an understanding of the importance of safety culture, 'error wisdom' and the role of education in the creation of a safe health care system
- an understanding of the essential elements and learning objectives of patient safety education
- an understanding of patient safety education delivery methods
- sharing of experience, development of skills and techniques for patient safety education
- barriers and issues associated with patient safety education
- issues and benefits associated with involvement of consumers in patient safety education.

Content/structure

This workshop will involve participants in dynamic discussions. The whole workshop is divided into three parts: Patient safety principles and education; essential elements of patient safety education and delivery of patient safety education. Participants will firstly be introduced to the topic of patient safety through a short presentation. Participants will then be involved in a brainstorming session through the discussion of a case presentation in order to discuss the various patient safety principles and theories. Participants will then be divided into groups to discuss the essential objectives of undergraduate patient safety education. Finally, a demonstration session will allow participants to learn through collaborative learning and reflection about the various teaching methods for patient safety education.

Outcomes/take home messages/conclusions

Patient safety education is important and it needs to start from undergraduate level. All medical educationists should actively assist in the development of patient safety education framework and delivery methods. This workshop provides a chance for all interested parties to work together and

to promote patient safety education in order to achieve a better and safer health care system.

Pre-workshop reading

Australian Quality and Safety Council. National Education Framework for patient safety.

C8—Leaders 2w

Interprofessional learning—leading the way in addressing future workforce needs

Janice Chesters, Monash University, **Cheryl Hobbs**, **Deborah McGregor**, University of Sydney, **Monica Moran**, University of Queensland, **Gillian Nisbet**, University of Sydney, **Judy Stone**, ACT Health

Regardless of health care setting, there is growing evidence to support the role of interprofessional teamwork and collaborative practice to improve the quality of service delivery and patient/client care outcomes. Given this focus on teamwork, there is an international trend to incorporate interprofessional learning (IPL) into the curriculum of health care university programs to better prepare students for future practice. To implement effective IPL, clinicians and academics need to be adequately trained to facilitate educational delivery within their own profession as well as across professional groups. Preparation for clinical or academic teaching is usually taught uni-professionally which reinforces professional boundaries rather than emphasise the relevance of teamwork and communication. Many health professional programs provide limited acknowledgement that students are learning in the same clinical environments.

This interactive workshop aims to:

- discuss the concept of IPL
- apply understanding of IPL to explore IPL opportunities in academic and clinical (work based) settings
- identify factors for enhancing IPL and barriers to its implementation
- develop strategies for overcoming barriers
- discuss the preparation and support required by educators involved in the delivery of interprofessional education (IPE) through IPL
- promote collaboration and networking opportunities for those researching, delivering, and promoting IPE and IPP.

Method

The workshop will consist of trigger presentations, small group interaction and discussions about participants own experiences. The workshop facilitators will also share their own experiences of implementing IPL as well as promote further discussion on IPL strategies for best practice within the workplace.

Acknowledgments

This workshop is presented on behalf of the AIPPEN Steering Group:

- Janice Chesters, Monash University
- Susan Gilbert-Hunt, University of South Australia
- Marie Hearttfield, University of South Australia
- Marion Jones, Auckland University of Technology
- Monica Moran, University of Queensland
- Karen Murphy, ACT Health
- Gillian Nisbet, University of Sydney
- Denese Playford, University of Western Australia
- Jill Thistlethwaite, University of Sydney

Abstracts—Friday

Keynotes

Managing political reality and workforce delivery in health education

Richard Larkins, Monash University

Abstract not available at time of printing.

How educators may influence the departure rate of health professionals from the workforce

Joan McMeeken, University of Melbourne

After setting the scene for future health care, this presentation will identify the projected shortages in Australia's major health professions and their current anticipated growth. The changing gender and generational profile will be explored, including their effects of retention. Additional factors known to affect retention will be addressed.

The roles of educators in health professional role redesign and opportunities in new curricula, professional reentry to the workforce, postgraduate learning and interprofessional learning will be considered as factors that may influence the departure rate of health professionals from the workforce.

D1—Linking 1

Framing physiotherapy clinical education in situated learning theory

Narelle Patton, Charles Sturt University, **Joy Higgs**, Education for Practice Institute, **Megan Smith**, Charles Sturt University

'Education does not occur in a vacuum.' (Kyrkjebø and Hage 2005)

This session will explore theory and practice of situated learning in the physiotherapy clinical education context and promote discussion about current challenges and future directions for situated learning in physiotherapy education programs. Universities are challenged to provide leadership and to discern a way forward that will ensure the ongoing quality of clinical education experiences and ultimately the quality of future health care professionals.

Learning in the clinical environment has many strengths; it is focused on real problems in professional practice settings and learners are motivated by its relevance and through active participation in these profession-relevant contexts (Spencer, 2003). However, the clinical education environment is currently under threat from societal, political and economic pressures in health care and educational systems (Best & Rose, 1996, p. 9).

Physiotherapists work in a health care environment of increasing complexity and rapid change, of fiscal restraint and demands for accountability. In this environment there is increasing tension between the provision of appropriate patient care and the provision of quality clinical education. Limitations in the number of sites offering clinical education, staff reductions, administrative policies, and increasing numbers of physiotherapy programs, necessitate creative and innovative approaches to accommodate clinical education while maintaining acceptable levels of productivity and quality of care.

The clinical environment is important in the experiential construction of professional knowledge. Clinicians play an integral role in the transmission of professional knowledge (Cohen 1981, p. 56) and have the potential to inspire the next generation of professional leaders (Eraut 1994, p. 40). Therefore, clinical learning models designed to meet future health care and educational needs must acknowledge the impact of the workplace environment on student learning and be formed in partnership with clinicians. Further, these models must be underpinned by a philosophy of support and mentorship for existing communities of practice.

Clinical learning models aimed at facilitation of students' learning and professional socialisation must maintain a central focus on the student. Therefore, university academics and clinicians are challenged to acknowledge the historical context of this generation of physiotherapy students to honestly and genuinely embrace a student centred approach to clinical education.

Consequently, university academics in partnership with clinical educators, clinicians and students are compelled to create clinical learning models that will efficiently produce professional leaders equipped to meet current and future health care demands.

Participants in this session will be invited to discuss how situated learning theory can address major issues and challenges in clinical education.

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Delivering physiotherapy in a sustainable manner

Wendy Chesworth, Coralie McCormack, University of Canberra

Traditional face-to-face delivery in postgraduate physiotherapy courses results in high levels of perceived student and staff stress. While students study for two years and then graduate, teaching staff remain and so continue to be exposed to the pressure of delivery of an intense learning program. This situation is further complicated for physiotherapy staff who must manage part-time academic positions (and the associated expectations for teaching, research and administration) while maintaining a clinical practice and a life beyond both these work contexts. Staff are acutely aware of the high quality learning experiences, occupation specific teaching and integration of theory and clinical experience expected by students. Simultaneously students across the university sector report issues pertaining to time constraints—managing employment, family commitments and travel. With the current growth in physiotherapy programs in the Australian higher education sector, it is timely to investigate the sustainability of the work/life balancing act required of teaching staff and students. This includes issues of timetabling and clinical education. Flexible delivery of learning and teaching has been suggested as one strategy towards more sustainable learning and teaching practice.

A preliminary study at The University of Canberra reports the experiences of staff and students when the traditional weekly face-to-face teaching model was replaced with intensive delivery of lectures in a cardio-thoracic unit within the Masters of Physiotherapy program. End of semester focus groups for academic staff, for students and for clinical supervisors were conducted by an independent facilitator. Balancing university, clinical practice and life commitments was an issue for participants in all focus groups. Students were supportive of the new mode of delivery and quickly saw possibilities for the transfer of this model to other units within the course. The initially negative viewpoints among teaching staff changed as the focus group discussion proceeded. The outcome was that academic staff and students agreed on two additional units that could be taught intensively. The focus group discussions also exposed a discrepancy between staff and students' understanding of stress. Staff saw stress and being over-tired as synonymous, however, students reported feeling stressed but not tired.

The issue of sustainable teaching needs further investigation. What would sustainable teaching look like in different contexts? Is there a mismatch of student and teacher perceptions of the nature of the balancing act required for sustainability? Are some teaching approaches more likely to be sustainable than others? Does the two year structure have implications for meeting clinical competency standards? The issue of sustainability should be considered in course planning, development, delivery and evaluation if high quality physiotherapy teachers are to be retained within the university sector rather than being lost to more financially attractive less stressful private practice.

D2—Linking 2

A focus on Year 1 and 2 medical student rural placements: serving time and optimising learning

Angelo D'Amore, School of Rural Health, Monash University, **Janice Chesters,** Department of Rural and Indigenous Health, School of Rural Health, Monash University

Introduction

Over the past five years, Monash University School of Rural Health have been delivering an experiential community-based learning program to all Bachelor of Medicine/Bachelor of Surgery (MBBS) students during their Year 1 and 2 rural placements. Currently, the program involves a one week Year 1 and two week Year 2 rural placement. This experiential learning program was developed to fulfil part of the Australian Government Rural Undergraduate Support and Coordination (RUSC) program's rural placement requirements for all Department of Education, Science and Training-

funded students. Since the implementation of the rural placement program into the new five year MBBS curriculum, there has been no major review or redevelopment.

In 2006, the compulsory RUSC program requirements were reduced from eight to four weeks of rural placements. This reduction was a driving force for this research project. The project was designed to investigate student and staff perceptions regarding the current program and to seek input into aspects of the curriculum that could or should change.

Aims

To determine whether we should retain our current Year 1 and 2 MBBS rural program (with or without contextual changes), or change the Year 1 program to two weeks, completely meeting our RUSC program requirements in the early years of the MBBS degree. Importantly, we need to determine how much emphasis should be placed on the views of students when redeveloping the program.

Methods

We undertook a national and international, published and grey literature review. A questionnaire (qualitative and quantitative) was conducted, asking Year 3–5 MBBS students about their experiences during Year 1 and 2 rural placements. Semi-structured face-to-face interviews were undertaken to gain a deeper understanding of the views and experiences of staff, community members and Year 3–5 students who have been involved in the Year 1 and 2 rural placement program. The incorporation of other health science students into a new program with the potential for student delivered health services was studied.

Results

Our preliminary results showed that most staff favour keeping the current one week Year 1 and two week Year 2 program. The students were also satisfied with the current program, but were willing to have completed a two week Year 1 program. However, the majority of students had the proviso that they would only consider longer Year 1 placements if they had more clinical exposure. Staff were positive about introducing other allied-health students into the program.

Discussion points

Two main questions have arisen:

- How can we strike a balance between meeting RUSC rural placement requirements and providing quality, educationally-appropriate learning?
- How much influence should student's views on their learning have on the development of the program?

Conclusion

Our presentation will briefly report on our results and analysis and set the context for the group discussion. The key input of the PeArLS participants will help us make decisions about the planned redevelopment of our year 1 and 2 rural program.

Making interprofessional linkages work for mentoring

Judy Stone, Inter Professional Learning Coordinator for ACT Health, **Coralie McCormack**, **Gordon Waddington**, University of Canberra, **Giovanna Richmond**, Australian Catholic University, **Karen Murphy**, ACT Health

FRIDAY

The dilemma

Inter Professional Learning (IPL) is about linkages—linkages between professionals to enhance their professional learning, their skills as educators and their effectiveness as practitioners. Making connections is part of the everyday work of health professionals and most would agree on the potential benefits of such connections. However, maintaining connections and making them work is difficult in a busy work environment. The ways in which health professionals can facilitate effective inter professional linkages are the focus of this presentation.

The case study

The pilot mentoring program for early career researchers in allied health professions in the ACT will provide the context for the presentation. This program is a collaborative innovation between the University of Canberra, ACT Health and the Australian Catholic University. This is the first time a collaborative mentoring program of this type has been undertaken in the ACT. The pilot program is supported by the ACT Health and Medical Research Council and links allied health professionals who have expressed a desire for support in launching and/or developing their research profiles with research advisers from across the ACT health research community. The program was launched in February 2007 and will conclude in November 2007.

There are ten pairs of mentors and mentees working towards personally identified research goals. Mentoring partners meet for at least two hours once a month. Regular workshops on research-related

topics are organised to support the mentoring partnerships to progress their goals.

A key aim of supporting health professionals through mentoring is to engender a strong inter professional research community within ACT. It is hoped that the pilot program will provide a basis for a strong case to expand and continue this support into nursing and medicine, as well as continuing to develop potential linkages for allied health professionals.

The linkages

The following linkages have the potential to develop through a sustained mentoring program;

- *Mentors/mentees* partnerships—skills and knowledge sharing.
- *Inter professional partnerships between mentors/mentees*—different professional backgrounds, able to learn from, with and about each other.
- *Professionals and academics*—collaborating on a professional development initiative.
- *Health care delivery and rese*arch—supporting evidence based practice.
- *Policy and workforce planning*—common goals of retention of staff, staff recruitment, quality health care and quality clinical supervision.
- *Community and researchers*—benefits through improved research culture in health—continued improvements in patient safety and quality.
- *Community and health professionals*—benefits through retention of skilled staff in health and tertiary sectors.
- *Community and health and education*—able to meet patient and client changing needs in a timely manner.
- *Inter-insti*tutional—links between academic institutions.
- *Personal*—links between individuals.

Group discussion

The following questions will be discussed and considered during the session:

- How can this pilot mentoring program be developed into a sustainable, ongoing mentoring culture?
- How can this mentoring initiative be developed to include nursing, midwifery and medical staff?
- What are the issues and barriers to deal with in making research part of clinical practice?
- How can the culture of mentoring and research become established within clinical practice for all health professionals?

Acknowledgments

Financial and in-kind support for this pilot program has been provided by the ACT Health and Medical Research Council, ACT Health and the University of Canberra.

D3—Linking 3

Clinical handovers education: should it be part of medical education curriculum?

Kwang Chien Yee, Ming Chao Wong, Paul Turner,
University of Tasmania

Introduction/background

Medical errors are common within acute health care delivery. One of the major factors in error causation is human fatigue. There are a lot of initiatives around the world, with the aim to reduce the working hours of doctors, such as the European Work Directive and the Australian Medical Association Safe Working Hours Campaign. With the reduction in working hours, as well as increasing number of shifts, clinical handovers have become increasingly important. It is especially important for junior doctors to provide adequate clinical handovers in order to ensure continuity of patient care. Otherwise, the problem of physician fatigue will just be substituted with the problem of discontinuity of patient care due to inadequate clinical handovers. Despite the importance of clinical handovers, there is little evidence to support best practice of clinical handovers to ensure patient safety. There is even less evidence to develop an educational framework for clinical handovers training for medical students and junior doctors.

Purpose/objectives

This session aims to introduce the topic of clinical handovers, especially emphasising the importance of clinical handovers in ensuring continuity of patient care. It then aims to generate discussion and debate among participants who are interested in the topics regarding the appropriateness of clinical handovers as part of the medical education curriculum. This session then aims to develop a framework for clinical handovers education for students and junior doctors. This session then aims to discuss and

debate the validity of SBAR (situation, background, action, recommendation) system, developed in the USA, within the Australian health care context. Finally, this session aims to achieve a consensus among participants regarding the curriculum, learning objectives and delivery methods for future clinical handovers education for medical students and junior doctors.

Discussion or issues for exploration/ideas for discussion

- What are the essential elements of clinical handovers in order to ensure continuity of patient care and patient safety?
- What are the important elements of clinical handovers which is relevant to medical education, both at undergraduate and prevocational levels?
- Should clinical handovers be included in undergraduate medical education and how should it be included?
- What is the educational framework which is suitable for clinical handovers education at undergraduate and prevocational levels?
- Is the SBAR technique for clinical handovers suitable for the Australia health care system?
- What are the learning objectives for undergraduate and prevocational clinical handovers education?
- What are the best methods to deliver clinical handovers education at undergraduate and post-graduate levels?

Pre-reading prior to this session

Participants of this session are encouraged to be familiar with the following reports regarding clinical handovers:

- Australia Medical Association (2006). Safe handover: Safe patients. ACT: AMA.
- Australian Council for Safety and Quality in Health Care. (2005) Clinical Handover and patient Safety.
- SBAR clinical handover Performa from the USA.

Creating new frameworks for studying the learning experience of international medical graduates

Mary-Ann Ryall, Centre for Educational Development and Academic Methods, Australian National University, **Samantha Egan**, Australian National University Medical School

Comprehensive review of the literature on international medical graduates (IMGs) reveals a number of potential gaps in the collective evidence base surrounding how IMGs learn in a practice setting. We postulate that there may be basic flaws in the predominant research paradigm employed in many previous studies resulting in a lack of focus on the importance of the wider learning context for this subgroup.

In this session we aim to outline what we perceive to be potential knowledge gaps in the published (including 'grey') literature and together with session participants to explore the following areas:

- What dominant research question(s) are we dealing with?
- What previous methodologies have been employed and are these all appropriate for research into this area?
- Who are the audience for the research and how has that/should that influence the methods employed?
- What barriers and enablers to successful data collection have been identified by participants?
- How can we promote a more transdisciplinary and collaborative approach to research of this nature?

It is anticipated that participants will share their experience in the field to allow a broad discussion around these highlighted issues.

This session will be of interest to those who conduct research with and teach international medical graduates. If sufficient interest is generated a collaborative discussion paper outlining these issues will be further developed and submitted by participants.

Reflective writing as an assessment tool

Nancy Lee, Marcus Dabner, Jan Radford, Ellen Ennever, University of Tasmania, School of Medicine

Background

The use of reflection as a method of assessing students' professional behaviour and attitudes has emerged as an important pedagogical practice in many disciplines including education, nursing and medicine. At the University of Tasmania School of Medicine, the medium of reflective writing has been introduced to encourage students to think more deeply about their experiences and activities in becoming a doctor. Through this reflective writing, it is anticipated that students will gain a deeper insight into issues that affect them and their practice, and in assessing these pieces; teachers should be able to monitor the students' personal and professional development, areas difficult to assess through standard testing. This study evaluates the use of reflective writing to see if it is fulfilling its potential as an assessment tool.

Method

The three groups surveyed and interviewed to obtain data for this study were year five medical students, interns who had graduated from the University of Tasmania in 2005, and staff members involved in the assessment of the reflective pieces.

Results

The surveys and interviews revealed that all groups understood the role of reflective writing, however, emphasis differed, with students being more focused on knowledge acquisition aspects, interns more frequently identifying communication skills and assessors focusing primarily on professional development. All groups indicated there was merit in the reflective writing process and perceived outcomes affecting practice and/or thinking were in clinical judgement, communication skills and written expression. There was some cynicism expressed by a minority of students about the reflective writing process and some suggestions for improvements.

Conclusions

Findings suggest that reflective writing used as an assessment tool for senior medical students does have value and positive outcomes for the majority of students, however, all three groups identified weaknesses in the process such the limitations of the written form of reflection and the nature of the feedback provided to students. These issues require further investigation.

How to research reflective writing in undergraduate medical students?

Pamela Hyde, Helen Moriarty, University of Otago, Wellington School of Medicine and Health Sciences

Reflective writing plays an increasingly important part in assisting undergraduate medical students at the Wellington School of Medicine and Health Sciences to deepen their understanding of learning experiences and the meaning of these experiences for them. Such tasks encourage reflection, critical analysis and synthesis. Students complete reflective writing tasks on thought-provoking episodes in years 4 to 6. More recently, journaling has also underpinned the community-based learning of students in their 2nd and 4th years.

Second year students are placed in community health settings during the 'Early Community Contact' block course and fourth year students in their 'Community Practice' module rotation. The experiences include attendance at methadone clinic, Narcotics Anonymous and Alcoholics Anonymous meetings, where students encounter patients living with addiction problems.

Analysis of the reflective journal entries about addiction experiences reveal some interesting differences between the learning of 2nd and 4th year students, deserving of further research. Whereas second year students reflect upon their encounters with patients with addiction problems from a cognitive standpoint, describing their thinking about new knowledge-based learning, 4th year students tend to describe their experiences in terms of their affective content, emphasising their feelings of anxiety and discomfort about these experiences. In contrast the 2nd year student comments are invariably confident and positive.

These observations raise questions about the reason for changes in the cognitive and affective content of student reflections. We want to conduct research into the changes in student reflections over time using experience with patients with addiction problems as the example (e.g. from 2nd year to 6th year). We want to particularly explore the implications for teaching and learning on addiction and on reflection in practice.

We hypothesise that the shift from cognitive to affective reflections is a product of a number of factors. These include a shift over time from knowledge-based learning to deeper learning in

which personal affective responses are identified and analysed. We also hypothesise that as undergraduate students become increasingly socialised into their medical role they develop a greater awareness of their professional responsibility to assist all patients. It is possible that as they progress through their training students become aware of a dissonance between their skills and knowledge and their professional responsibility to assist patients with complex aetiology such as addiction problems. We suggest that this dissonance may give rise to anxiety.

The questions we will pose in this PeArL are:

- Which research methods will most effectively track changes in student reflections over time in relation to patients with addiction problems?
- How might we research the basis for these changes and explain them?
- How might the outcomes of this research inform the undergraduate curriculum?

Biography of presenting author

Pamela Hyde is Medical Education Adviser for the University of Otago, Wellington School of Medicine and Health Sciences. Pamela has previously worked in educational management as national director of stage one and postgraduate rural education for the Royal New Zealand College of General Practitioners and as senior manager and head of department at the Central Institute of Technology. She has also worked as a lecturer in behavioural science and as an educational consultant to a number of organisations. She completed a PhD in medical sociology from Victoria University in 1998.

D5—Learners 2

If mentoring is so important, then it must start at the undergraduate level

Allison Hilbig, Eastern Health Physiotherapy Clinical Coordinator

Mentoring has become a buzz word in the health industry. The need for mentoring has been identified as a key strategy for all levels of staff, but particularly the junior levels. High drop out rates within allied health has prompted managers to develop mentoring programs to help increase professional longevity of their staff, improve satisfaction in the workplace and avoid costly high turnover rates of staff.

However, the decision to leave the profession is often being made prior to graduation and often arises from clinical experiences. Students on clinical placements are often overwhelmed when exposed to death, sickness, mental illness and simply 'real life' situations for the very first time. Poor student-educator relationships can leave a student feeling crushed instead of inspired.

Clinical placement experiences have the potential to empower students and instill a passion for their chosen profession … or clinical placements can leave the student feeling disempowered and questioning their suitability for work in the health industry.

As an illustration of the success of the mentoring program for the students within Eastern Health, a brief case study will be presented which describes students with a poor student-supervisor relationship who ultimately indicated a strong interest in returning to work at that campus, overall satisfaction with the clinical experience and acknowledgement of the educator's strengths as well as weaknesses. With support and mentoring even the most difficult obstacles to a successful placement can usually be overcome.

This PEARL will give provide opportunities for discussion such as

- What is mentoring and how is it different to supervising?
- Who should mentor students (is this the responsibility of the clinicians or the universities?)
- What skills/experience is required to be an effective mentor—or can anyone do it?
- Where does the clinical educator fit into this mentoring process?
- When should you refer a student to formal counselling?
- Making it safe for students to disclose their feelings—maintaining confidentiality
- The balance between student confidentiality and staff feedback
- The perceived threats to clinical educators and how to manage this
- Group versus one-to-one mentoring—advantages and disadvantages

FRIDAY

- Some of the issues facing students on placement and how to deal with these in mentoring sessions

Comments from students will be available to illustrate the outcomes of this mentoring process or to stimulate further discussion.

Acknowledgment

Attendance at this conference is being funded by a DHS grant to promote the outcomes of a DHS-funded training and mentoring program.

Hertzberg's Motivation-Hygiene Theory applied to student experience

Joy R Rudland, Faculty of Medicine, University of Otago, New Zealand

Hertzberg developed a theory based on what made people happy in the work place. Hertzberg's two-factor theory suggest that we have basic needs (hygiene or maintenance needs) which, when not met, cause us to be dissatisfied. However, meeting these needs does not necessarily make us satisfied. Those needs which make us satisfied are called motivators.

Example given by Hertzberg—'I need to be paid on time each month so I can pay my bills. If I am not paid on time, I get really unhappy. But when I get paid on time, I hardly notice it. On the other hand, when my boss gives me a pat on the back, I feel good. I don't expect this every day and don't especially miss not having praise all of the time.'

Applicability to the learning environment may suggest that we need to differentiate between hygiene needs and motivator needs associated with learning.

Theory applied to the learning environment

Hertzberg's two-factor theory has stimulated reflection on evaluation questions with regards to learner satisfaction of a learning opportunity (course). For example, a commonly held evaluation question is whether objectives were clearly stated. Is a clear statement of objectives, a hygiene need or a motivator? A favourably response to this question may not have any bearing on the satisfaction or quality of the learning, or does it?

The questions posed in this PeArL questions the applicability of Hertzberg's theory to the learning environment?

Can the theory be applied to the learning environment—are there aspects of a learning experience that can be described as satisfiers or dissatisfiers or are experience really on a continuum?

How could this be researched?

What implications would it have for the evaluation of learning program?

Biography of presenting author

Joy Rudland is the Director of Educational Support and Development in the Faculty of Medicine at the University of Otago.

D6—Learners 3

Supporting learning by use of detailed objectives in a PBL-based integrated course: impact on students' approaches to and confidence in learning

Anne Tonkin, **Carole Gannon**, University of Adelaide

Background

The University of Adelaide has had an integrated PBL-based program in the first three years of its 6 year undergraduate program since 1994. Until recently, students were not given access to case-specific objectives, either before or after the case, because of the possibility that this would inhibit development of independent learning skills and narrow the focus of student learning. Despite the provision of objectives for the year overall, there was considerable insecurity among the class about whether they had 'covered' the material that was intended by the curriculum planners in relation to each case.

In semester 2, 2006, the provision of case-specific objectives immediately after each case was introduced with the overall aim of testing the hypothesis that this would inhibit student learning in Years 1–3. Specifically, the focus of this study was to:

- compare student performance in examinations with previous cohorts
- compare student generated learning objectives with faculty generated objectives
- examine the students' views on the impact of the provision of case objectives on their learning and on their degree of confidence.

The process

In the last session of each case, students summarised the case as a group and generated their own objectives, as was the previous practice. These were collated on the Tutor Evaluation form, which also incorporated tutor feedback on how well each objective was addressed by the group. Students were then were asked to comment individually on the level of learning achieved in relation to each faculty-generated objective. A copy of the objectives was then made available to each student.

The following outcomes were assessed:

- students' performance in examinations.
- student and faculty-generated objectives were compared to asses the quality of students' objectives
- areas identified as important were compared in faculty vs student objectives
- depth of coverage of topic areas as interpreted by students vs tutors
- thematic analysis of student comment on the objectives and the impact their provision had on learning.

Key findings

- No impact was observed in relation to examination results, either of the knowledge-rich question types (e.g. MCQ) or the clinical reasoning questions.
- Student-generated objectives were of higher quality in groups where the tutor was more involved in facilitating the process of collating them.
- Topic areas identified were similar for faculty and students for scientific and clinical topics but there were significant deficits in student objectives in areas such as epidemiology, public health and psychosocial issues. Students commented that they would emphasise these areas more as a result.
- Students were overwhelmingly positive about the provision of objectives and had more confidence in their learning.

Conclusions

There is no evidence that the provision of learning objectives *after the case* negatively impacts on student learning in the Adelaide course. Provision of the learning objectives does not limit their learning, and is appropriately used as feedback on learning by students. Students are very reassured by the provision of objectives and use them appropriately to guide their learning. The provision of objectives in this way will continue.

Attitudes, perceptions and knowledge of pharmacy students towards complementary and alternative medicine (CAM)—lessons for CAM education

Evelin Tiralongo, School of Pharmacy, Griffith University, **Marianne Wallis**, Research Centre for Clinical Practice Innovation, Griffith University and Gold Coast Health Service District

Background

More than 50% of the Australian population uses CAM, mostly in combination with conventional medication. With the increased usage of CAM comes the demand for integration into health professional education, as acknowledged by recent policies and position statements by the Australian government and health professional associations.

However, the incorporation of CAM into pharmacy, nursing and medical curricula in Australia remains a challenge because it is not mandatory and is handled quite differently by different institutions. Furthermore, the evaluation of CAM curricula is complicated because students' ability to learn about CAM is influenced by factors such as student's prior knowledge and motivation, together with the perceptions and attitudes of clinical preceptors.

Objective

This pilot study examined the uses, attitudes, perceptions and knowledge of second, third and fourth year Griffith pharmacy students towards CAM using a survey and semi-structured interviews. One hundred and ten pharmacy students (36 second year, 34 third year and 40 fourth year students) completed the questionnaire, and nine students (three per cohort) were interviewed.

Results

Pharmacy students firmly believed that CAM education should be integrated into the existing pharmacy degree with students' preferring the incorporation of CAM education into the undergraduate degree over additional postgraduate studies. However, they saw a greater need for education in complementary medicine (e.g. herbal medicines, vitamins) than for education in complementary therapies (e.g. acupuncture, meditation). The use of CAM by self, family and friends correlated with a positive attitude to CAM. Knowledge and educational input rationalised rather

than marginalised students' attitude towards CAM. A significant boost in knowledge scores from second year to fourth year coincided with an increase in CAM education during the curriculum in this specific educational setting, however, the usage of information resources declined slightly and only one third of the fourth year students stated that they had learned enough about CAM. Qualitative data suggest that preceptors and pharmacy placements are underutilised in students' CAM training.

Conclusion

Pharmacy students perceive CAM education as an integral part of their professional degree. Unbiased CAM education integrated over several years of study increases student knowledge and rationalises their thinking and judgement of CAM. Preceptors can influence students' attitudes towards CAM. Further research should focus on preceptor CAM training and comparative, cross-sectional studies among nursing and medical students to provide further evidence that will help develop multi-disciplinary teaching of CAM in core curricula for health professionals.

Issues for exploration/discussion:

Establishment of a national focus group for CAM training in health professional education to help coordinate:

- unbiased and evidence-based CAM content for health professional education (possible national strategy)
- training of interested academic/clinical staff to overcome shortage in CAM skilled educators
- development of CAM training strategies for clinical preceptors
- multi-professional CAM training of nursing, medical and pharmacy students

Educators learning together and modelling interprofessional collaboration

Susan Vella, Sal Sanzone, Helen Simpson, Nicky Hudson, Graduate School of Medicine, University of Wollongong

Earlier this year, the Graduate School of Medicine at the University of Wollongong (UoW) began with its first cohort of 80 graduate-entry students. The clinical skills program, a competency-based approach, is a significant part of the integrated curriculum. It aims to provide contemporary and relevant clinical skills training that is temporally matched to students' other learning activities including clinical placements, to assist them to link theory to practice in their formative years. To deliver the clinical skills program, a diverse group of tutors was recruited from the Illawarra and Shoalhaven region. Under the guidance of an experienced medical academic, this group of dedicated professionals from medicine, nursing and health science have formed a collaborative partnership to develop and deliver the clinical skills curriculum across two campuses. Confidence for this approach was buoyed by a report from the UK that first year medical students valued nurse tutors, and in fact opposed having only medical clinicians for clinical skill teaching sessions. Using their wealth of clinical and educational experience from previous settings, the UoW tutors have embarked on an exponential learning curve to apply their knowledge, skills and professional attitudes to medical student education.

A variety of health and medical schools are investigating how to improve professional relationships within the health care industry by fostering interprofessional collaboration in the curriculum. One problem fostering interprofessional collaboration in the early years of training is lack of student awareness of the boundaries or expectations of their particular discipline. The interprofessional collaboration demonstrated by the clinical skills tutors within the UoW integrated curriculum will be a model to begin the formation of interprofessional collaborative attitudes within the student group, providing a foundation for interprofessional learning in later years. Elaboration on the collaborative development process will demonstrate how an interprofessional group of tutors can apply educational, clinical, technical and communication skills in medicine and nursing to a common aim and role-model a culture of interprofessional teaching and learning.

D7—Learners 4

Assessor's confidence and accuracy in pass-fail decision making

Mike Tweed, Chris Ingham, School of Medicine and Health Sciences, University of Otago, Wellington

Background

The consultation between a clinician and a patient is central to medical practice. Observation of consultation in a simulated context is commonly used in the assessment of student competency. Assessor judgment of complex events can be difficult. The assessors will have a varying degree of

confidence in these judgments and decisions based on judgments. This research studied the confidence of assessors, reasons for confidence and actual accuracy of pass-fail decisions.

Methods

Faculty assessors watched a selection of recorded observed consultations between one of four undergraduates with one of four simulated patients. They marked the students using a checklist and global ratings of the facets of consultation (history taking technique, formulation of a diagnosis, formulation of a management plan, explanation to the patient, and communication with the patient). This produced a checklist score and a global score. They also marked the students on a pass mark scale, anchored at 5.5/10 for the minimum standard for progress, the pass/fail decision point, to be used in the borderline regression standard setting process. Then the assessors gave their confidence as measured by perceptions of accuracy in the pass-fail decision. Assessors were interviewed in a semi-structured manner regarding reasons for their confidence and factors that influence it. Borderline regression was used to calculate a pass score for the checklist and the global scoring methods. Pass-fail decisions were made from this. Accuracy was defined as the % of pass-fail decisions that were the same by score and scale.

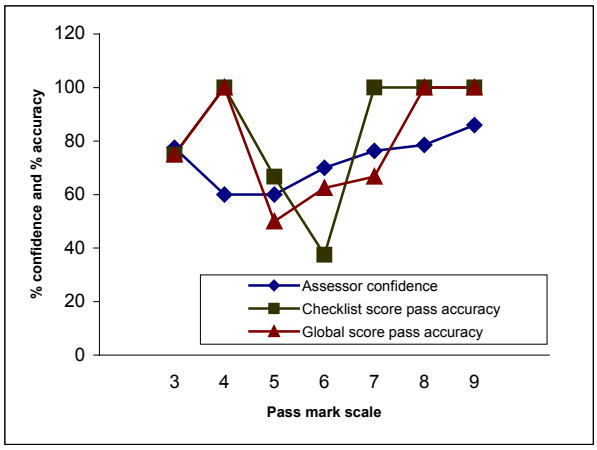
Results

23 Faculty assessors watched 2 recordings each. Confidence in their pass-fail decision was lowest, at 60%, for the pass mark scale of between 4 and 5. Actual pass-fail decision, taken from the checklist and global scores, was at a low of 40% when between a pass mark scale of 5 and 6. Confidence was above actual accuracy of pass-fail decision around the pass-fail interface but below accuracy further to the extremes. Interview comments concurred with assessors stating it was easier to be confident in passing than failing decisions. Some assessors felt that the scenario, actor script, student instruction and questioning, things that they had no control over, reduced their confidence. Making decision limited to one scenario reduced confidence despite being asked to make decisions on the consultation observed.

Discussion

Assessor confidence and accuracy were lowest close to the pass-fail interface. The assessors overestimated their accuracy close to the pass-fail interface but underestimated it further away. Assessors felt more confident to just pass than just fail students, but accuracy was lowest just above pass. Confidence was below accuracy at the extremes and this may have been influenced by the assessors only seeing a single consultation. There are many factors that assessors perceive affect their confidence, some of which will relate to real assessments.

Mean % confidence and % accuracy by pass mark scale score



Funding

Wellington Medical Research Foundation Inc

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How useful are traditional textbooks to modern medical students?

Peter G Baker, Diann Eley, Rural Clinical School, UQ School of Medicine

Medical textbooks remain an integral component of the four year graduate MB BS curriculum at The University of Queensland School of Medicine. Currently there are nine essential textbooks covering the various medical specialities, with a further 96 recommended for the course, of which 58 relate to the clinical years. There is however no information as to how students use such books, or view such a traditional learning method as compared to modern electronic resources.

To investigate this issue, a total of 67 third year medical students undertaking their clinical training within the Rural Clinical School were asked to provide their views on the educational role and value of traditional medical textbooks, at the commencement of their two year clinical training period, using a questionnaire.

Results

No student rated textbooks as ‘outdated’, ‘old-fashioned’, ‘not useful’, ‘least useful’ or (with one exception) ‘over-rated’. 44% of students regarded textbooks as either easy to use, valuable, helpful or undervalued as an educational resource. 16% of

students expected to use textbooks a lot, as compared to 2% a little, and 8% regarded them as the best way to learn. 24% of students regarded textbooks as worth buying for personal use, with 6% rating them as too expensive to purchase.

When asked how they expected to use textbooks during their clinical training, 35% of medical students indicated they would 'buy them and use a lot', 25% would 'buy some and use a little', 24% would 'borrow them and use a lot', and 16% would 'borrow and use a little'.

In response to a hypothetical situation in which they were given a free traditional medical textbook in concise format 90% of students said they would read 50–100% of it, as compared to only 57% if this was an online version. Similarly, 90% of students indicated they would use a free comprehensive large medical textbook moderately or frequently, as compared to 54% electronically. Students were also asked to rate ten clinical learning resources and environments from 1 (poor) to 10 (excellent). Textbooks were ranked 7th with a score of 6.9, above formal lectures (8th), web-based resources (9th) and Community Organisations (10th), and below, in order, ward rounds, tutorials, outpatient clinics, inpatient clerking, GP surgeries, and from other students.

Discussion

Textbooks are still regarded by medical students as an important valuable method of learning medicine, in contrast to web-based resources, which scored about half as well as textbooks and were second from bottom on the rating scale of educational value. It was also noteworthy that students rated peer-based learning as a useful educational approach, but had very negative perceptions of community organisations as suitable training environments. This evidence supports the current MB BS program policy of providing lists of recommended textbooks, and advising their use as an appropriate component of undergraduate medical training.

Biography of presenting author

Professor Peter Baker is Head of the University of Queensland Rural Clinical School, and is also a General Practitioner. His current educational research interests include interprofessional education and peer based learning.

Intercalated degree at Auckland Medical School: barriers, benefits and postgraduate career profiles

Serena JK Park, Moon-Sun Choi, Charles NJ McGhee, Trevor Sherwin, Department of Ophthalmology, University of Auckland, New Zealand

Purpose

To establish career profiles of Auckland medical graduates who completed an intercalated research degree; and to identify the benefits of such an intercalated degree.

Method

A questionnaire was devised and mailed to all Auckland MBChB graduates who completed an intercalated degree during medical school.

Results

Among 50 graduates who met the inclusion criteria, 26 replied; a response rate of 52%. The majority of the respondents was male (81%) and European (73%), and most undertook the intercalated degree option after third year of medical school (78%). Laboratory-based research was the most common type of intercalated degree research project (89%).

The most common reasons for participating in the intercalated degree program were: interest in career in research and academic medicine (76%), an interesting project being available (42%) and wanting to study an area in depth (42%). 88% of respondents encountered some problems during the intercalated year. The most common problems were: loss of contact with friends in the medical course (62%), failure of experiments to produce meaningful results (27%) and heavy workload (23%). The majority of respondents stated that the intercalated degree gave them greater understanding of research methods (92%) and helped in the choice of future career/specialty (53%). 81% were able to produce publications in peer-reviewed journals from their work during the intercalated year. Respondents generally did not find return to clinical medicine difficult following intercalated research year (58% found it easy/very easy compared to 12% who found it hard/very hard).

The satisfaction associated with an intercalated degree was generally high, with 88% agreeing with the statement that 'it was a worthwhile endeavour.' Although 81% agreed that intercalated degree was a valuable experience for personal reasons and 73% agreed that the skills they learned during the degree were helpful during their medical careers, only 58% of respondents agreed that the degree had been

helpful in furthering their careers. However, more respondents were reluctant to do the intercalated degree again if given time over medical student in the current environment (31% affirmative versus 50% negative).

85% of the respondents were either specialist consultants or trainees, only 1 out of 26 respondents was a general practitioner. 92% of the respondents had been involved with research and 19% obtained a higher research degree following graduation. 85% of the respondents were involved in medical student or allied health professional teaching.

Conclusions

Despite the low take-up rate of intercalated degree at Auckland Medical School, the graduates who took the intercalated degree option were generally satisfied with their experience. Although the majority of respondents felt that intercalated degree was a worthwhile endeavour and valuable experience personally, they were generally reluctant to do the degree if given time over as a medical student in the current environment.

D8—Learners 5

How to reduce medicolegal uncertainty in clinical practice and education

David A Kandiah, School of Medicine, Griffith University

Medical students in most modern Medical curricula have formal lectures and examinations in applied medico-legal practice. How can we make this relevant to them and how can we optimise their insights and training so that they are intrinsically aware of medico-legal issues in this country?

Third Year medical students at Griffith University have a 2 hour session reserved for Applied medico legal Issues in their general Clinical Training Year. In this session, there are a number of psychological and legal principles introduced that are meant to trigger discussion and awareness of the relevance of good Communication, Concern, Competence and Consistency in Clinical Medical Practice.

Some key principles are presented as a trigger for group discussion.

Developing a multimedia resource for teaching intercultural clinical communication

Robyn Woodward-Kron, Jan Hamilton, Ilana Rischin, Louisa Remedios, University of Melbourne

This paper reports on the development and implementation of an interactive multimedia DVD ROM to develop overseas-born medical and health sciences students' clinical communication skills. *I'm feeling a bit crook* aims to develop pre-clinical and clinical students' interviewing skills, knowledge of Australian cultural norms and institutions as well as Australian colloquial English. The DVD-ROM includes interviews with overseas-born students, providing these students' perspectives of challenges and issues in intercultural clinical communication. The interviews informed the design of the four student-(simulated) patient interviews which are: a medical social history, a medical alcohol history, paediatric asthma management, and physiotherapy management of chronic pain. The tasks associated with the videos focus on challenging communication aspects from an intercultural perspective. Other resources in the DVD include a library section of relevant newspaper articles and a glossary section with sound files of common colloquial Australian English expressions which students are likely to encounter in clinical settings. The DVD is currently being trialled at the University of Melbourne, and the paper will report on students' evaluation of the DVD-ROM as well as the effectiveness of the DVD in developing students' intercultural clinical communication skills.

Keynote—Student prize winners

Using patients' perceptions in the assessment of year four physiotherapy students' clinical performance

Martin Kidd, University of Otago, New Zealand

Purpose

To develop an instrument to measure patient perception of the clinical performance of year four physiotherapy students, and determine what role, if any, that patient perception may play in the assessment of the student.

Background

The use of patients to assess clinical performance, where patients' perceptions authentically underpin the assessment tool, is not found in the literature.

Assessment influences learning. If patients' views are assessed, their inclusion in assessment methods may positively influence the students' learning.

Methods

This study was undertaken in three phases. In Phase 1, semi-structured interviews were carried out on eight patients from a musculoskeletal outpatients' clinic, to determine what, for the patient, are the important components of 'good' physiotherapy. Constructive grounded theory analysis of the interviews underpinned the development of a patient perception questionnaire in Phase 2. In Phase 3, the questionnaire was given to patients of year four physiotherapy students to measure their perception of the clinical performance of the student during their recent course of treatment. Additionally, demographic and descriptive information about the student and patient was gathered.

Results

Ninety-three per cent (n=40) of eligible students from four musculoskeletal outpatient clinics in Wellington, Christchurch, and Dunedin, administered the questionnaire to 57% (n=475) of their patients. The instrument developed appears to be a workable document that was easy to complete, since all returned surveys were able to be used as data. Analyses indicated that the perception of the patients correlated with the grade ascribed to the student by the faculty staff ($r=0.436$, $p=0.005$). In addition, the older the patient, the higher the perception score for a student ($p<0.0001$), and if the student speaks English as a first language, then both the faculty ($p=0.015$) and the patient ($p<0.0001$) were more likely to ascribe a higher score to the student.

Conclusions

Data analysis from the questionnaire suggests that a student who is considered capable by the faculty is likely to exhibit characteristics of clinical performance that the patients consider to be important in a clinical interface. This may mean that clinical assessment practices, which currently exclude the patients' views, could be augmented or in part replaced by patient perception scores, to positively influence student learning. Alternatively, the results of this study may suggest that patient perception scores are unnecessary since the faculty staff is likely to hold the same view of clinical performance. In addition, the study suggests that physiotherapy clinical training programs may benefit from more specific focus on those characteristics that patients consider to be important, namely communication, confidence, and rapport.

A case-based learning project exploring concepts of clinical education

Charlotte Denniston, Third-year physiotherapy student, Monash University

Problem-based learning (PBL), or case based learning (CBL), has gained popularity in health professional education in recent years (van Duijn & Bevins, 2005). In the Bachelor of Physiotherapy course at Monash University, CBL is a key component of the curriculum, designed to develop students' clinical reasoning, deductive thinking, team work, leadership, and skills relating to evidence based practice.

'Courtney's clinical', is the title of the CBL, a case written as an assignment for submission as third year student summative assessment. The case is centred round the supervisory relationship between a third year physiotherapy student and her clinical educator. Courtney, a student, has had a previous poor experience on clinical placements. She almost failed her last rotation and feels apprehensive about her present placement. Andrew, a clinical educator, has been a practising physiotherapist for five years, yet he has never supervised a student before. The key issues in clinical education that emerge from the case are:

Feedback

There is an emphasis on the importance of feedback discussions in a clinical education setting. The literature states that feedback is a crucial part of clinical education, this feedback can be positive or negative, but its effectiveness is determined by how it is delivered, whether the recipient listens to it and then how the recipient acts on it (Henderson, Ferguson-Smith, & Johnson, 2005).

Reflective journal writing

The benefits of reflective journal writing by students are also explored in this case. Reflective journal writing is said to be a useful tool to facilitate the link between the academic and clinical practice components of the undergraduate curriculum (Williams, Wessel, Gemus, & Foster-Seargeant, 2002), it can also help students to make sense of the unfamiliar work environment and the new world that is patient interaction (Rose & Best, 2005).

Learning styles

A specific learning issue of this case asks the students to discover their own learning styles, and to discuss the impact their style has on learning during clinical education. Learning style is described as a learning preference for a particular activity, and if

learning styles are known then a flexible learning environment can be created (Rose & Best, 2005).

The learning issues emergent from this case emphasise the importance of reflection, communication and learning styles, and the impact of these components on student learning and the educator/student relationship in clinical education. By undertaking the CBL, students are encouraged to research and discuss methods to help avoid and resolve conflict during clinical education.

The purpose of this CBL, if it were to be used in the classroom setting, would be to educate undergraduate health professional students, in order to prepare them for their first clinical education experience.

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E1—Linking 1

Hypnotherapy—poised to enter higher education

Jenny Graham, Faculty of Health and Applied Sciences, Southern Cross University, **Ian Wilson**, University of Western Sydney, **Godfrey Isouard**, University of Western Sydney, **Leon W Cowen**, Academy of Applied Hypnosis

Introduction/background

At the Gold Coast 2006 ANZAME Conference, Jenny Graham, Leon Cowen and Paul Orrock conducted a session on hypnotherapy, attracting significant interest across the health professions. Many ideas and viewpoints were shared and many questions were raised.

The current health climate (with strong public interest in natural and complementary medicine and governments keen to contain burgeoning costs of health delivery) seems conducive to serious examination of the place of hypnotherapy in the preparation and/or continuing development of health professionals. The benefit of hypnotherapy as an effective rapid drug free intervention and one which can be coupled with and enhance other interventions (Cognitive Behavioural Therapy or counselling) is being recognised.

As reported in 2006, a wide range of health practitioners are seeking training in hypnotherapy and there is a need to identify core competencies. The AMA has advocated the development of educational and practice standards and hypnotherapy has been accepted for inclusion within one existing health degree. It is currently being considered by other institutions, including Southern Cross University.

Jenny will report on the issues encountered in translating established models of training in hypnotherapy into postgraduate education opportunities for a range of health professionals. These include professional, academic and organisational issues within a context of government-led changes to professional role boundaries, in response to workforce needs.

Ian will report on the considerations surrounding the possible inclusion of hypnosis principles as a topic within the medical curriculum. Discussion will centre on the reasoning behind adding hypnosis to an already congested syllabus.

Godfrey will detail the quality assurance challenges surrounding the inclusion of hypnosis in higher education sector. Course presentation, learning and assessment, and accreditation issues will be overviewed.

Leon will answer any technical questions regarding hypnosis and hypnotherapy. Should time permit, a demonstration of the hypnotic state will be provided.

Purpose/objectives

This PeArLS and linked Demonstration (jointly facilitated by Jenny, Ian, Godfrey and Leon) are designed to build on the collegiate exchange, which proved so valuable last year, and to further develop thinking about models for progressing hypnotherapy education in the higher education sector.

Issues for exploration/ideas for discussion

The combined PeArLS and Demonstration will embrace exploration of the following questions:

- Where is hypnotherapy entering higher education?

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- What is the status of basic competencies development and their explicit recognition in education and training initiatives?
- How do we accommodate different degrees of specialisation desired/required by different health professions?
- What are the quality challenges in teaching and assessment across and within curricula?
- What are the options for modes of delivery?

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E2—Linking 2

Linking students with one another to share information about drugs and alcohol

Vanessa K Hughes, Kathy Robinson, School of Arts and Sciences (NSW and ACT), ACU National

In 2007 the Australian Catholic University, in conjunction with the NSW Drug and Alcohol Workforce Development Council, initiated a drug and alcohol information program to educate a wide range of students about the potential dangers of the most commonly used illicit drugs. A Drug and Alcohol facts brochure was prepared and awareness lectures given during Orientation week. Lecture material was also made available as part of an online unit in which all enrolled students and staff were registered. In addition to the factual material, the online unit also contained an online quiz to enable students to test their knowledge about drugs as well as an online discussion board.

This online discussion board allowed students from all campuses of ACU to discuss their ideas and opinions regarding alcohol and drugs. In the interest of creating a forum were people could discuss their ideas without prejudice, the names of the contributors were removed from the discussion board and all comments remained anonymous.

By early March, 204 messages had been posted on the discussion board. Of these, 105 messages pertained to questions regarding the online assessment or contained messages that were not relevant to the discussion topic. Of the remaining 99 posts, several themes emerged.

As a result of this course, two students had intervened and encouraged a family member to give up an addiction. Other posts were made describing drug problems within the student's family and the negative effects the addiction had on their life. In addition to this, seven students generously shared their own rehabilitation experiences. 17.2% other posts were made by other students to support and encourage their recovery.

Students also discussed possible solutions to the drug and alcohol problem in Australia with 6.1% presenting their ideas as to how to solve this issue. Two different opinions emerged from this discussion with 12.1% supporting harsher penalties such as incarceration for drug users and well as exclusion from university studies for recreational users. Another 24.2% of students stated that rehabilitation instead of incarceration was more appropriate and that they believed that drug users need to be supported not judged. Of all the posts made on the discussion board only 8.1% supported drug or alcohol use. The discussion forum posts were viewed a total of 3937 times by students in the first two weeks of the program. The discussion board continued to be utilised throughout the autumn semester and by early May, a total of 559 posts had been made and the discussion board viewed 7480 times.

The inclusion of the discussion board as part of the online drug and alcohol program has created interest and generated lengthy high quality debate between students as well as providing them with a sense of ownership of the program. By linking students through a safe discussion forum many have been able to state opinions and share experiences that they would otherwise have been afraid to voice.

E3—Linking 3

Reflections on how students acquire skills in physical examination

Anna Vnuk, Flinders University

Traditionally students learnt physical examination on ward inpatients or hospital outpatients through the apprenticeship model. Students would follow around clinicians—consultants, registrars or interns—who would demonstrate physical examination on patients, particularly those with abnormal signs.

There have been many changes to the health care system since then. These include:

- decrease in patient stays
- patients being more empowered to refuse to be examined by students
- increase in service demands of clinicians
- increase in teaching of clinical skills to students in (essentially) the pre-clinical years
- increased competition for the scarce resource of patients from students in the clinical years.

These changes have forced early clinical skills teaching into clinical skills labs with students learning physical examination on each other.

There are advantages:

- more structured teaching
- greater opportunities for feedback
- increase in the amount of time that can be spent on one aspect of examination (a healthy subject can tolerate more poking and prodding).

However, there are several significant disadvantages to learning on each other. These include:

- paucity of abnormal signs
- potential lack of formality

Frustratingly, there is no evidence in the literature that learning in a clinical skills lab will lead to better outcomes as determined by clinical skills performance on patients. These studies are hard to construct as the very reason these skills are being taught in a lab is because it is difficult to teach on patients, which makes it hard to assess the level of skills on patients.

However, it begs the question: is there a difference between the way students acquire skills in a lab setting on each other to how they would acquire skills when learning on a ward with the apprenticeship model? Do early experiences without abnormal signs hamper their later ability to be able to elicit and recognise them?

In this PeArLS, I will discuss my early findings from the literature on how students acquire these skills in clinical skills lab settings and their implications for how we teach physical examination.

E4—Learners 1

The attitudes and expectations of first-year medical students to mental health and mental health training

Jessica Ogle, School of Psychology, University of Wollongong, **J Nicky Hudson**, Graduate School of Medicine, University of Wollongong, **Peter Caputi**, School of Psychology, University of Wollongong

General practitioners play an important role in the assessment and management of mental disorders. Despite the high prevalence of mental illness presenting at general practice, many clinicians fail to appropriately detect and manage these patients. General practitioners receive the skills and motivation to investigate these problems in their undergraduate and postgraduate training but little transfer of education to practice is seen by clinicians who do not have an open and positive attitude to the treatment of mental illness. As medical students' attitudes and expectations to mental health and mental health training may ultimately affect their motivation and accuracy in detecting and managing a mental disorder, it is important to survey these student characteristics to plan mental health teaching and learning interventions.

Students attitudes to, and expectations of, mental health and mental health training will be assessed using a two-part study. In Part 1, twelve first year medical students from the Graduate School of Medicine (GSM), University of Wollongong will participate in focus group workshops (2 groups, n=6) where mental health and mental health training will be primarily discussed. A thematic analysis of the focus group qualitative data will be used to generate items for a questionnaire assessing the attitudes and expectations to mental health and mental health training. In Part 2 this questionnaire will be administered to the year 1 cohort (N=79) of medical students from the GSM at the University of

Wollongong. As the sample investigated in this study consists of graduate students from a variety of backgrounds demographic data will also be collected, for example student age and previous educational and work experience.

Previous research suggests that novice medical students will have negative attitudes towards mental health, and that these attitudes change as they progress through their training. The findings to be presented from this study will inform the base-line attitudes and expectations of GSM's graduate-entry, yet novice, medical students. The questionnaire can then be used to monitor attitudes and expectations as students progress through the course. As much of the GSM undergraduate mental health training will take place during student's long-term placements in integrated (community and local hospital) regional, rural and remote settings, rather than traditional terms in acute care tertiary hospitals, the learning outcomes of the integrated placements will be of considerable interest. The data from this study will help ensure the mental health curriculum of the GSM at the University of Wollongong meets the desired learning outcomes, and is responsive to the needs of the student body.

Biography of presenting author

Jessica Ogle is currently completing a Bachelor of Psychology (Honours) degree at the University of Wollongong.

E5—Learners 2

Professional, communication and clinical skills: linking undergraduate and postgraduate medical curricula

Barbara O'Connor, Phillippa Poole, John Kolbe, Medical Programme Directorate and Department of Medicine, FMHS University of Auckland, New Zealand

There is an expectation that medical graduates are 'professional' and have excellent communication and clinical skills. While medical schools have long had a strong curricular focus on the development of these attitudes and skills, postgraduate colleges are now developing professional qualities curricula, as part of postgraduate education.

Recently in Australia and New Zealand, there have been calls to reduce the duration of specialist training time. Traditionally PGY1 and PGY2 have been largely focused on service delivery and have not been educationally well-aligned to either undergraduate or speciality training. The Australian Junior Doctor Framework and Bridging projects are promising initiatives to help span the UG—specialty divide. Curriculum development is occurring at each level relatively independently, and without an overt commitment to the efficiency and effectiveness of the entire training continuum.

Within the six-year University of Auckland medical program, the first year is a generic biomedical/health science year and the final year is a Trainee Intern (TI) year. TIs are expected to work relatively independently within medical teams, taking a third of the workload of the RMO.

The Faculty has recently embarked on a review of our PCCS curriculum and with permission, have used the draft RACP Professional Qualities Curriculum as a framework; specifically using the same domains. We are developing a list of desired PCCS competencies at the end of Year 5 under these theme headings after widespread consultation, including with the jurisdictions. The current teaching/learning will be reviewed against this desired suite. Staff and external groups will also be invited to prepare proposed models for effective teaching and learning to achieve the competencies, together with desired methods of assessment. We anticipate substantial changes to the teaching of a much broader and higher level of communication skills throughout the program and enhancement of the teaching of clinical decision making. Planning is under way to ensure that PCCS education continues seamlessly through PGY1/2 into specialist training, that the competencies at the end of the TI year equip the graduates with better skills to function as RMOs and to ensure the work is consistent with the recommendations of the recently released Workforce Taskforce report.

Questions for discussion/exploration:

What competencies should medical school graduates possess in PCCS to allow them to move seamlessly into the workforce?

What generic descriptors should be used to indicate the required competency to be attained at each level?

How do other Schools decide this?

How can we overcome the obstacles to get better alignments between PGY1/2, undergraduate and speciality education?

What are effective, shared governance models for determining PCCS competencies at each level of training (undergraduate, PGY, speciality)

E6—Learners 3

What did audit and surveys tell us about cohorts of medical graduates in their prevocational training years?

Jenny Gough, **Zoe McCallum**, Department of Paediatrics, The University of Melbourne and Royal Children's Hospital

Background and purpose

Academics with responsibility for 'new' medical courses are sometimes challenged by their medical and surgical colleagues about the 'poor quality' of the graduates of the new courses. In a teaching hospital, these conversations are not unusual and not easy.

We collected and analysed group data to see how graduates of different medical courses are viewed by their seniors and how they view themselves as they enter medical practice in challenging paediatrics training roles.

Methods

Firstly, we administered a self-assessment questionnaire as each of the two groups began their PGY2 year. Secondly, we audited official assessment reports of trainees conducted by consultants/clinical supervisors over two years. We expected to detect differences between the two groups.

In spreadsheets, simple frequency statistics were used to compare the groups on all items. Free text responses were analysed to identify themes in each of the year groups.

Results

The groups look much the same on their self-appraisal and on their supervisors' assessments. They look a little different in terms of the value they place on their medical course and secondly, on the types of paediatrics issues about which they are anxious.

For discussion

What do others' 'corridor' conversations tell us about perceptions of graduates of new courses?

Given the existing literature and knowledge, was this a worthwhile evaluation to undertake?

Are the groups really different but our methods too flawed to detect the differences?

How should we evaluate the impact of a new course when the student group itself has changed, for example, proportion of postgraduate students?

What should we do next … train the assessors? Other?

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E7—Leaders 1

Opening dialogue to build university partnerships in teacher development and research in collaboration with ANZAME

Tim Wilkinson, Christchurch School of Medicine and Health Sciences, **Fran Everingham**, University of Sydney, **Jennene Greenhill**, Flinders University Rural Clinical School

We would like to initiate discussion and float some ideas about how ANZAME might better support master studies programs in medical and health professional education, doctoral supervision and collaborative research.

The theory and practice of education across medicine and the health sciences is sufficiently differentiated from that of university teaching to have its own discourse, teacher development needs and research momentum. However, evidence suggests there is a diminishing cadre of health professional academics willing to forge a career as educational developers in the face of tertiary sector ambivalence regarding the status of teaching; the preferencing of research over teaching for promotion; and the 'poor cousin' view of educational research, not to mention the dissuasive impact of little to no funding sources for such research.

Six universities in Australia offer interprofessional postgraduate studies in health professional education. These are located in faculties of medicine or health sciences at Flinders, Monash, Sydney, University of New South Wales, University of Queensland, and University of Western Australia. Program participants are university colleagues, and educational managers and clinical teachers across the health services.

Many of these programs emerged to service in-house academic and clinician development, and then, over time, attracted external enrolments. Even so, programs tend to have small intakes, which in turn can hamper availability of study choices. Furthermore, many programs are staffed by academics whose curriculum support responsibilities, inevitably take precedence over their teaching into coursework studies in education.

These pressures do not bode well for: future staffing of educational support units; sustainability of coursework programs; enrolments in doctoral studies in health professional education, and, capacity for relevant supervision, let alone, for expanding the discourse and evidence upon which our field must be based.

This session is relevant to you if you coordinate or teach in a masters of health professional education, health science education or clinical education.

E8—Leaders 2

The learner to leader link: should ehealth be a core element of undergraduate medical education?

Kwang Chien Yee, Ming Chao Wong, University of Tasmania

Background/introduction

Electronic health (ehealth) is coming! The implementation of ehealth has promised to transform the health care system into an efficient and safe system. This promised, however, has not realised in the real world. This is due to the lack integration of technology with socio-cultural factors in the health care system.

Within the ehealth circle, the concept of 'user-centred design' is gaining momentum. In practice, health care professionals struggle to express what they hope to achieve through technology implementation. This is often due to a lack of understanding of the technology and the impact of technology on the complex health care system.

The participation of clinicians, especially junior doctors in the design and implementation of information communication technology is essential for future successful health care transformation. Future doctors will therefore have to fulfil a new role of driving this digitalisation process. It seems therefore imperative medical students—future doctors receive education and training regarding ehealth and its impact on the socio-cultural factors of medical practice.

Purpose/objectives

This session aims to introduce the topic of ehealth, the impact of ehealth on the socio-cultural aspect of clinical practice and the concept of user-centred design. The session will demonstrate the importance of clinician involvement in ehealth through practical examples that the facilitators have involved in the design and implementation process. It then aims to engage attendants to generate discussion and debate regarding the importance of education and training of future doctors regarding ehealth. This session then aims to develop a framework for future ehealth education and training for medical students and junior doctors.

Discussion or issues for exploration/ideas for discussion

The following issues and questions can be explored and discussed, dependent on the interests of the participants:

- Should ehealth be part of the medical education and training for medical students and junior doctors?
- What are the important elements of ehealth which should be covered in medical education?
- How should socio-technical integrated ehealth design and implementation be integrated into the current curriculum?
- What is the educational framework that is suitable for ehealth education at undergraduate and junior doctor levels?
- How could we develop the knowledge and skills of medical students and junior doctors in the area of ehealth?
- What should be done about medical education in order to foster a better culture to utilise best utilise technology in health care?
- What is the best method to deliver ehealth education?

- Who should deliver ehealth education and training for medical students and junior doctors? Technologists? Clinicians? Or health informaticians.
- Should health informatics form a new discipline within the health science field in order to maximise the potential of ehealth transformation?

F1—Linking 1

Identifying 'collaborative stepping stones': helping new and existing team members learn to reframe collaborative practices

Anne Croker, Joy Higgs, Franziska Trede, Charles Sturt University

Health professionals commonly work in a number of different teams during the course of their career, and as they move between teams they are frequently required to collaborate in different ways, in different contexts and about different issues. Working in these different ways involves the reframing of collaborative practice. Collaboration is guided by formal and informal rules and processes, and is reliant on shared purpose and sound interpersonal interactions. Team members collaborate for a variety of purposes including cooperation between team members, coordination of tasks, and/or synergistic production of knowledge and understanding. However, despite frequent changes to membership in health care teams and the complex nature of collaboration, there is a paucity of research exploring how health professionals learn to reframe their collaborative practice to suit different team contexts.

This paper presents interim findings of an interpretive study exploring health professionals' experiences of collaboration within rehabilitation teams. Semi-structured interviews with 66 team members from 9 rehabilitation teams in a NSW area health region were undertaken and 13 team meetings were observed. Thematic analysis of data identified a number of 'collaborative stepping stones' used by incoming team members to transform their collaborative practice to suit their new team context. Identified 'collaborative stepping stones' include: 'where have I come from' (recognising previous team experiences as the basis for making meaning of the new team); 'the welcome' (dealing with introductions and judgements); 'making contact' (developing an understanding of roles and characteristics of other team members); 'knowing how it works' (identifying formal and informal team processes and purposes); 'feeling your way' (negotiating own roles and means of interacting with others); 'teaming up' (cultivating relationships within teams and communities of practice); and 'moving the mountain' (instigating changes to team processes and interactions).

The purpose of this presentation is fourfold: to propose the notion that reframing collaborative practice is an important component of health professional practice; to discuss the role of 'collaborative stepping stones' in transforming collaborative practice; to explore how an understanding of 'collaborative stepping stones' can assist new and existing team members learn to reframe their collaborative practices; and to discuss educational implications for preparing graduates to work with different teams.

Safety on clinical placement: students, patients, and teachers

Jan Coles, Robyn Hill, Jill French, Gippsland Medical School, Monash University

Aim

To explore safety issues of early clinical placement in a graduate entry MB.BS. Program.

Background

Gippsland Medical School (GMS) opens to postgraduate entry students in 2008. The Medical School is based at the Monash University campus in Churchill with the majority of site placements for first year students in Gippsland.

Theoretically, aligning the classroom and the workplace will reduce the theory-practice gap, and taking an interdisciplinary approach models teamwork and interdisciplinary communication. Furthermore, feedback and evaluation of clinical skills from current undergraduate students shows that while they value clinical skills highly they think they would benefit from more learning in the workplace. Current students perceive these benefits as including: learning in context, applying their knowledge in interactions with patients, seeing how health professionals work, and understanding health care settings.

Increasing workplace learning for a large cohort of students has been problematic. However the smaller postgraduate entry offers an opportunity for a greater emphasis on teaching and learning in a health care setting.

GMS Students will spend a day each week learning and practicing clinical skills in the clinical laboratory. They will alternate between the campus and a site visit each week. The clinical skills curriculum brings together knowledge and skills learned and practised at the University with Clinical site visits. This process aims to allow students to reflect and identify gaps in their knowledge and skills, motivating them to learn more deeply and making their learning more relevant (Dornan, Littlewood et al. 2006; Levett-Jones and Bourgeois 2007). In addition early clinical experience helps medical students to socialise into their chosen profession. In keeping with learner-centred learning theory it is a shared and collaborative process between teachers and staff (Amin and Eng 2006).

Outcomes

Medical students in year A have a total of seventeen site visits, the first six take place in a large regional hospitals and a number of smaller regional hospitals. Students are supervised on site by clinical educators. Further placements occur as students develop their clinical skills, these include: a community health centre (4 visits), general practice (4 visits) and an aged care facility (3 visits). Sites visited are aligned with the curriculum to enable students to relate their newly acquired knowledge and skills to real patients in the real world. For example the aged care placements occur while students are learning about neurology, respiratory medicine and cardiology.

During the hospital and aged care placements students will be supervised by a clinical educator who is most likely to come from a nursing background. In using clinical educators GMS hopes to promote interdisciplinary teamwork by modelling its use in teaching and learning in clinical skills. The role of the clinical educator is to support, teach and supervise students while on clinical placement.

The later placements in each semester are structured so that these occur in community settings rather than large medical institutions, for example: general practice and community medical centres. Here the students will be supervised by general practitioners and other health care team members.

Challenges for discussion

Safety of learners as early MB.BS. Students in the clinical environment

- new medical students, inexperience in this role
- previous expertise: How to acknowledge and yet recognise potential conflicts between roles
- approaching patients
- managing difficult situations.

Safety of Patients during interaction with early MB.BS. students

- inexperienced students taking histories, doing procedures and examination.

Safety of Clinical Educators from diverse health care backgrounds as primary supervisors of early MB.BS. students in the clinical environment

- valuing the clinical educator in medicine
- potential conflicts between role as patient advocate and clinical teachers.

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What health professionals do: a framework for the development of assessable learning outcomes

Rufus Clarke, Macquarie University

Learning Outcomes are statements of what a graduate of an education program should be able to do, expressed in terms of behaviours which are observable and therefore, potentially, measurable and assessable. The development of a coherent and comprehensive set of Learning Outcomes is an indispensable step in the development of 'constructively aligned' curriculum and assessment (Biggs, 2003).

Many health professions have developed statements of the attributes of graduates: in medicine, examples can be found in the General Medical Council (UK)'s Good Medical Practice, in the CanMEDS 2005 documents of the Royal College of Physicians and Surgeons of Canada, and in the Australian Medical Council's Attributes of Medical Graduates.

These statements are useful reminders of what should be covered in a curriculum, but they do not provide a useful framework for curriculum and assessment development. It is not sufficient to consider professional activity in terms of high-level constructs: these have to be translated into the actual professional roles and contexts where they are to be implemented. (Hays *et al.*, 2002)

Hays and colleagues' approach to the development of Learning Outcomes has been employed, at both pre-graduate and post-graduate levels. First, the roles of the doctor were identified, e.g. establishing productive working relationships, diagnosing disease and illness. Then the contexts in which these tasks might be undertaken were identified, e.g. interactions with patients, with families and carers, with health care colleagues, with the health care system, with the community.

The roles and levels of interaction are set up as the two axes of a matrix, and the activities required of a doctor in each of the cells of the matrix are considered as the basis for the construction of Learning Outcomes.

This has been found to be a practical and productive way of developing Learning Outcomes, at both pre-graduate and post-graduate level. Examples of the respective matrices, and of assessable Learning Outcomes, will be presented. The approach has been used in medicine, but is generalisable to education for any health profession.

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F2—Linking 2

Launceston Clinical School's Patient Partner Program and database

Kathryn Ogden, Jenny Barr, Toby Gardner, Kim Rooney, Jan Radford, Launceston Clinical School, University of Tasmania

Background

In 2005 the Launceston Clinical School (LCS), University of Tasmania, identified the potential for improvements in clinical training and implemented the Patient Partner Program (P3). P3 is a curriculum integrated clinical skills teaching program for years 5 and 6 medical students, that systematically recruits community based patients to provide students with a contextually valid environment in which to learn and practice their clinical skills, with a focus on chronic disease management.

Why P3?

The imperatives for developing P3 were:

- to overcome failings of the traditional model of teaching clinical skills which tends to be ad-hoc and opportunistic, disease rather than patient centred, and often highly specialised
- ever diminishing opportunities for student access to clinical exposure within the hospital based health care system
- the students' desire for more structured clinical teaching time
- to provide a clinical education model which can concentrate on chronic and evolving disease management
- to provide a safe learning environment.

What is P3?

On a weekly basis students experience small group clinical skills learning sessions with real patients with chronic illness, who have consented to be Patient Partners. P3 teaching is facilitated by GP tutors who provide important on the spot feedback and mentoring. The P3 coordinator, who has a clinical background, liaises with the medical community to recruit patients, ensure integration of patient cases with case based learning (CBL) curriculum, manages the weekly P3 teaching sessions, ensures appropriate care of Patient Partners, and maintains the P3 database.

Approaches that P3 takes to link students' learning pathways and environments

P3 aims to create an environment that enables students to learn important clinical skills by:

- linking students to their future professional role by providing an authentic learning environment
- linking students to professional mentors from the community
- linking students' hospital based teaching with community based practice
- providing managed clinical exposures that are laterally integrated into the CBL curriculum
- linking assessment to curriculum by providing formative assessment opportunities
- creating links to the local community through the Patient Partners
- creating links with the local medical community.

P3 Database

Central to P3 has been the development of a database which integrates the key aspects of P3: the people involved; the clinical encounters; and the students' formative assessment data. The P3 database is a resource that assists with management of the program and provides an opportunity for formative feedback to students. The database is key to the transferability of P3 for use in other clinical training programs and is currently undergoing development that will allow it to be marketed as such. The capacities of the database will be displayed.

Key messages

P3 demonstrates a successful, innovative approach to clinical skills training that links students to the community and to their future professional role. The development of the P3 database will allow its transferability to other clinical skills training programs and its ongoing evolution is informed by evaluative research.

Does the clinical placement model used in the School of Nursing at Flinders University promote collaborative relationships between academic and clinical staff, and what are the factors that promote and hinder this process?

Maria Ng, Flinders University

Clinical education is an essential component of undergraduate nurse training. The clinical environment provides dynamic and rich opportunities for learning and practice (Chan 2002).

Since the mid-1970s when training of nurses began to leave the hospital milieu for University based education in South Australia, there has been an ongoing challenge to provide a balance between classroom and clinical education. This educational transition has seen hospital and health agencies, once the sole provider of nurse education, find difficulty in contributing to a curriculum which is foreign to them.

The need for these two institutions, tertiary education providers and health care agencies, to work closer together and experience cohesion in their efforts to educate nursing students has been acknowledged (Edgecombe et al. 1999; Palmer et al. 2005).

One attempt to enhance the relationship between university and health agency was the introduction of a new clinical placement model, developed at Flinders University, called the Dedicated Education Unit (DEU). This new change initiative proposed to bridge the emerging gap between clinician and academic, to work as colleagues not competitors, and to provide authentic clinical learning experiences despite large numbers of students. A key feature of the DEU model is the development of collaborative relationships between the academics and clinical nursing staff involved.

This study specifically assessed the effectiveness of this new model to maintain and foster collaborative relationships between academic and clinical staff. In addition, factors that promote and hinder this collaborative process were also identified and assessed to ascertain their impact.

Nursing staff that worked with students in several clinical placement venues, or DEUs, were surveyed using a questionnaire providing quantitative data for analysis. Opportunity for voluntary comment in the survey also produced some qualitative data from participants.

Results from this study revealed positive indicators that signify a collaborative relationship does exist between academics and clinicians. However, some areas were identified that suggested further research and development. These included providing feedback to clinicians on their teaching performance and maximising attendance at workshops provided for clinical nursing staff to facilitate their teaching roles. Factors were also recognised that potentially hinder the collaborative process and these included lack of time and existing workloads. New issues were also brought to light such as concern regarding communication with students for whom English is a second language.

The relationship between the academic staff member and clinical nursing staff determines the quality of clinical education (Cronenwett & Redman 2003). This vital collaborative relationship therefore necessitates examination and nurture to facilitate excellence in teaching and learning for nursing students in their clinical placements.

The usefulness of this study is limited by the sample size and the specificity of analysing a particular clinical placement model. Despite these limitations the research identified greater insight into the perceptions of nursing staff that work closely with nursing students and acknowledged crucial areas for further research and development to further enhance this collaborative process for the purpose of excellence in clinical education.

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The Health Care Team Challenge: linking students for interprofessional learning: a student presentation

Monica Moran, Division of Occupational Therapy, School of Health and Rehab Sciences, **Jessica Page**, Division of Physiotherapy, School of Health and Rehab Sciences, **Rachael Baker**, School of Pharmacy, **Amanda Wood**, **Kristy Nash**, School of Nursing, The University of Queensland

The Health Care Team Challenge (HCTC) is a public competition that provides a forum for teams of final year students from across the health professions to demonstrate their expertise in team management of a complex clinical case. The HCTC aims to develop and promote students' skills in working within an interdisciplinary health care team. In April 2007 the inaugural HCTC was held at The University of Queensland.

This presentation will be delivered by a group of students who participated in the HCTC.

The following areas will be addressed.

The organisation and implementation of the HCTC

The inspiration behind the event and the history of its evolution from idea to event will be summarised. Strategies around engaging and motivating seven different schools within a university faculty of health sciences to participate will also be explored.

The learning pathways undertaken by students during the HCTC

How students progressed toward integrating, prioritising and understanding the concerns of the patient as well as other members of the health care team will be described. This will include an exploration of the transition from a myriad of individual case plans into a holistic and patient-centred management strategy.

The experience of the competitors in the HCTC

The student experience of applying theory learnt within individual courses to a tangible and life-like situation and how this influenced their professional identities and confidence will be discussed.

The linking opportunities that arose from the HCTC

Students will describe their experiences of how the HCTC created links between students, mentors, knowledge, and skills to generate new ways of learning., inherently important to practice within the health professions. Participants functioned as team members and were challenged to communicate, locate information and appreciate the knowledge and expertise of students from other health professions.

The future of the HCTC

The HCTC is a wonderful tool to encourage inter-professionalism amongst health science students. As the trailblazers, we endorse the experience and would like to see the HCTC become an annual event within other universities.

The HCTC functions as a tool to engage students in the process of seeking best practice, bringing out the passions of the professions, and uniting them for the common purpose of excellence in patient care.

Following this presentation there will be an opportunity for discussion with the project coordinator and HCTC student participants from a range of professional backgrounds.

FRIDAY

Student focused clinical training: innovative model in a sub-speciality medical ward in a tertiary hospital

Girish Talaulikar, Centre for Educational Development and Academic Methods and ANU Medical School, **Paul Gatenby**, ANU Medical School, **Gerlese Akerlind**, Centre for Educational Development and Academic Methods, Australian National University

The delivery setting of clinical training within the fields of medicine is largely in wards within teaching hospitals. There is limited information available describing its delivery in a clinical setting. Available literature suggests that this is extremely variable with a majority of innovative education strategies designed to take the student away from the workplace. This is compounded by an ever-increasing demand for specialist medical skills, which along with practical constraints of training requirements limit the scope of clinical exposure for medical students. Teaching under these circumstances is restricted to a predominant passive observation of key activities such as clinical ward rounds or handover meetings conducted in an unstructured manner. Research looking at medical student feedback points to the frustration of students due to unclear expectations, inadequate supervision and feedback during clinical rotations.

We propose a model of clinical training that is student focused and based on principles of active learning. The model is based in a renal medicine ward in a tertiary referral centre and designed for year 3 medical students.

The model proposes to seamlessly integrate knowledge, skills and attitudes required for medical practice and seeks to achieve them through a process of cognitive apprenticeship that involves active participation in all aspects of patient care by the medical students with learning opportunities created by inter-disciplinary interaction. The clinical rotation starts with learning activities aimed at providing a knowledge base that will give the students a sense of confidence in interacting with real patients with renal diseases. The model uses scaffolding and fading approach where the students are supervised on a daily basis by junior medical staff and on a biweekly basis by renal consultants and encouraged to undertake clinical tasks based on the progress made. This is expected to have a favourable impact on development of clinical and communication skills facilitated by appropriate feedback. Additionally, this approach will encourage the students to understand their limitations and encourage learning directed at correcting them. The environment also helps the students appreciate the complexity of medical care as well as develop a sense of empathy towards the patients.

The model therefore, provides the students with a generic structure and approach that can be translated to any general medical setting with positive learning experiences.

The junior doctor experience—from preparation to practice

Kelby Smith-Han, **Joy Rudland**, Otago University

Introduction/background

This longitudinal study investigates the progression from the last year of undergraduate medical training (Trainee Intern, TI) to a junior doctor (House Surgeon) and beyond. It specifically looks at aspects of their experience in each phase of their medical career with a particular focus to discern if their reflections on the undergraduate course change throughout their career.

Purpose/objectives

The purpose of this presentation is to report on Phase 2 of the study. Phase 1 determined Trainee Intern (TIs) initial views on the educational program received as they become a junior doctor. Phase 2 investigates recently graduated medical students, now junior doctors, current experience of being a practicing medical professional.

Method

This is a qualitative study utilising a general inductive approach. Semi-structured in-depth interviews were conducted with House Surgeons (PostGraduateYear1) at the Dunedin School of Medicine, University of Otago.

Results

Thematic analysis from the in-depth interviews will be presented and discussed such as:

- Reflection (on the consistency of the alignment of the undergraduate program and current practice), Professional Identity (the negotiation of a new identity), Responsibility of Education (varying conceptions of the responsibility of learning), New Experiences (dealing with new experiences as a House Surgeon).

- Discussion or issues for exploration/ideas for discussion:
- Have we prepared our Junior Doctors for practice in their new role?
- Do the experiences of our Junior Doctors give rise to new challenges for Medical Educators?

Linking learners and engaging leaders to foster interprofessional learning and practice

Robyn Smith, Northern Health, **Megan Davidson**, LaTrobe University, **Jenni Smith**, Northern Health, **Karen Dodd**, LaTrobe University

Interprofessional learning and health care practice have been discussed for many years in education and in the clinical setting. Since at least the 1970s, articles have appeared in the literature encouraging team interaction during health professional education. Despite this, the practice of different disciplines learning together with a collaborative focus has been relatively limited, often focused to only a few clinical areas (eg: aged care or community health). In more recent years there have been significant interprofessional initiatives internationally with a growing interest within Australia. These initiatives have resulted in stronger educational, policy and practitioner focus on linking health professionals from different disciplines during their undergraduate training. In Australia, this interest is still mostly at the level of policy or rhetoric, with few practical examples or established programs. Educating new professionals to work effectively with their colleagues for the benefit of the patient is something that perhaps we believe we should do, rather than something we consistently do.

In this presentation we will describe and discuss an innovative project to develop and implement a model of interprofessional undergraduate clinical education for allied health professionals. This is a collaborative project between a metropolitan health service (Northern Health) and a university (LaTrobe University). The Department of Human Services, Workforce Policy and Planning Branch funded the project.

The project engages allied health undergraduate students from the disciplines of Occupational Therapy, Physiotherapy, Podiatry, Social Work and Speech Pathology in a four week placement of interprofessional clinical education. Trained team facilitators work with students, encouraging them to work in collaborative interprofessional teams with patients. Core teaching methods include guided reflective practice, facilitated small group activity and shared clinical experience.

In this presentation, we will use the results and experiences from two iterations of interprofessional clinical placements as a springboard for discussion of the challenges and potential of interprofessional learning. Of particular interest is the opportunity to apply interprofessional learning within a wider health care team. This will lead into discussion of how we—as allied health teachers, clinicians, academics and researchers—can link beyond allied health to foster interprofessional learning. We are interested to open the dialogue with medical, nursing and other health care educators in order to develop more integrated ways of teaching clinicians so they are equipped to join the workforce as effective team players.

FRIDAY

F4—Learners 1

Establishing standards for clinical competency testing: the good, the bad and the ugly!

Elfi Ashcroft, **Nicky Hudson**, Graduate School of Medicine, University of Wollongong

In traditional medical education, clinical skill development was often left to the latter parts of the course, with internships being the principal time for skill learning. During student placements, skill teaching tended to be ad hoc or unstructured, and skill assessment using one or two ‘long cases’ was potentially valid, but unreliable. Over the past few decades, earlier skill training has been adopted by many medical schools together with more robust methods of assessing clinical skills. In recent years, there has been a call for medical schools to develop and sign off on core clinical competencies before graduation.

The Graduate School of Medicine (GSM) at the University of Wollongong has an ethos of early clinical skills and core competency acquisition. To this end, GSM has established skills centres at both the Wollongong and Shoalhaven Campuses, with clinical teaching staff dedicated to guiding students through the development of clinical competencies core to an ‘undifferentiated’ medical practitioner. Many generic skills feature early in the curriculum and their acquisition is tested by summative competency assessment. The following issues associated with the development and implementation of a summative clinical competency assessment of Basic Life Support will be presented

for discussion: the development of the marking template; the rationale for use of the global judgement of unsatisfactory, satisfactory and excellent; the determination of performance criteria for each of these levels of achievement using a modified version of Bondy's rating scales (1983); assessor briefing, benchmarking and debriefing; the experience of testing the first cohort of graduate entry students; and the need for student debriefing following their first performance based assessment.

Faculty development in a new school: an evaluation

Gary Butler, Graduate School of Medicine, **Lori Lockyer**, School of Education, **Liz Farmer**, Graduate School of Medicine, University of Wollongong

In January 2007 the University of Wollongong, Graduate School of Medicine opened its doors to its first 80 students. To deliver the curriculum the small team of campus based academics are assisted by over 150 Honorary Academics who are drawn from across the local health care community; which until the development of the School was a relatively untapped resource.

In order to support both the honorary and campus based staff there was a need to develop and implement a comprehensive and coordinated faculty development plan that addressed the needs of the school and curriculum as well as ensure continuing community engagement in the course delivery.

The faculty development program's philosophy is based on theory, best evidence and educational research and seeks to deliver a program that is consistent with the learner centred model of the School and models the delivery of learning activities across the curriculum. The program offers both general introductory modules leading onto specific pathways depending on the requirements of individuals and faculty and utilises educational technology to deliver the program over a split campus and is supported by the online learning environment to promote ongoing learning development of the individual.

This presentation will consider the conceptual framework and faculty development map and report on the levels of engagement, outcomes of the ongoing evaluations and seek to gain insight from other schools experience with the subsequent discussion to help inform future developments

How do assessors make decisions on scoring of observed consultations?

Christopher Ingham, **Mike Tweed**, School of Medicine and Health Sciences, University of Otago, New Zealand

Background

The consultation between a clinician and a patient is central to medical practice. Observation of consultation in a simulated context is commonly used in the assessment of student competency. The aim of this project is to find how assessors make decisions when marking an observed consultation.

Methods

Faculty assessors watched a selection of recorded observed consultations between one of four undergraduates with one of four simulated patients. The assessors marked the students using a checklist and global scores for the facets of consultation (history taking technique, formulation of a diagnosis, formulation of a management plan, explanation to the patient, and communication with the patient). This produced a checklist and global score. They marked the students on a pass mark scale to be used in the borderline regression standard setting process. Assessors were interviewed in a semi-structured manner regarding the marks they awarded.

Results

23 Faculty assessors watched 2 recordings each. The mean checklist, global score and pass mark scale between students were different ($p<0.001$). There was no difference between patients for the checklist or global scores, although there was for the pass mark scale ($p=0.015$). There was no difference between the checklist, global score and pass mark scale between assessors. Checklist score, global score and pass mark scale variance was mostly due to student factors. Checklist and global scores correlated with the pass mark scale ($r>0.7$, $p<0.001$). Regression analysis demonstrated that diagnostic formulation ($\beta=0.6$, $p=0.001$) and the explanation to the patient ($\beta=0.35$, $p=0.04$) were significant predictors to the pass mark scale outcome. Facet global scores all correlated with each other ($r>0.7$, $p<0.001$).

In the interviews assessors said they thought all attributes were linked with each other, and as such all contributed to the decision for the pass mark scale. Assessors thought they scored the pass mark scale based on the checklist or global rating, as well as their own personal impression of a student. Regarding history taking; content, style and interaction were important factors. For diagnostic

formulation, a broad method of formulation considering differentials was important. For explanation and negotiation, the student should give the patient a good understanding of what had happened. Even if diagnostic formulation was poor, a student explaining their decisions scored well. Communication and rapport led to the greatest variation in the assessors' views. Although assessors agreed on what was important there were differences in perception of how this was displayed. Assessors felt poor history taking, diagnosis and communication were important in the pass mark scale decision.

Discussion

Overall examiner mark allocation was consistent with score variance mostly due to student factors. There was no difference overall in examiner marking. On an individual level there were difference between examiners, even observing the same recording. The assessors tend to agree on what is important but there is variation in how this is interpreted. Occasionally there were single factors that where more important to one assessor than another.

Funding

Wellington Medical Research Foundation Inc

F5—Learners 2

Educators are learners too: the outcomes of a DHS-funded Training and Mentoring Program

Allison Hilbig, Eastern Health Physiotherapy Clinical Coordinator

In 2006, Eastern Health was allocated a DHS grant as part of the Clinical Placements Strategy. The project goal of this DHS innovations project was to demonstrate how clinical capacity, efficiency and effectiveness can be improved through innovation.

A 'Training and Mentoring Program' was developed within Eastern Health and applicants were sought from each of the 5 campuses within the organisation. Applicants were required to currently have no or very limited involvement in the student program.

The training aspect of the program consisted of internal and external workshops and courses covering personal reflection/development, clinical supervision and leadership skills.

The mentoring aspect of the program involved individual weekly meetings throughout the duration of the clinical placement program. Mentoring varied with the needs of each supervisor.

This abstract will discuss the outcomes of this program including:

- 100% of course participants described the training as very beneficial
- 80% described the mentoring as very beneficial
- 80% felt more confident in supervision of students
- 100% felt more prepared for the supervision of students
- 100% felt more prepared to deal with difficult student situations

A survey was conducted of all clinical educators in the organisation comparing the DHS training and mentoring program participants with other staff. This survey found a higher level of satisfaction with the clinical school program amongst those who had undertaken the training than those who had not. The desire for training was high amongst all respondents, highlighting the need for clinical educators to be adequately trained in the supervision of students.

Students reported greater satisfaction with the supervisors who participated in this training and mentoring program than those who had not.

A case study will highlight the transformation of one campus. Previously, no students wanted to be placed at this site due to its rural setting and long travel distance from Melbourne. Having trained and supported staff resulted in the creation of new a placement with a high satisfaction rate from students and students now specifically seeking placements at this site.

In summary, our clinical educators require appropriate training and require ongoing support and mentoring through this process. The result is more confident and effective staff, who acknowledge not only the needs of the students but also the needs of themselves as learners. It is significant however, that despite the successful outcomes, this program would not have been possible without securing a DHS grant. This highlights the need for appropriate funding to facilitate adequate training of our clinical educators.

Learner: evaluating and meeting their needs. Self-assessment promotes dialogue between medical students and clinical teachers

Karen Garlan, Western Clinical School, **Vicki Langendyk**, **Pippa Craig**, Office of Teaching and Learning, Faculty of Medicine, University of Sydney

Introduction/background

The University of Sydney Medical Program is an integrated 4-year, graduate entry PBL course. Third year medical students are based in hospitals and undertake eight (4 week) clinical rotations across several teaching sites in urban and rural NSW. At the end of each rotation supervisors complete an assessment form intended to provide students with formative feedback. Students have complained of inadequate and poor quality feedback. In 2006 the feedback form was changed to include student self assessment and to provide specific instructions to encourage better supervisor feedback. There are two components to the form: a section for grading of 10 clinical and professional performance categories according to four marking criteria (Not satisfactory, Borderline, Clearly Satisfactory, Excellent) and a section for written comments by both students and supervisors. At the Western Clinical School we compared the relationship between student and supervisor graded assessment of the clinical criteria and studied the quality of self assessment and supervisor written comments. Six months after the completion of third year we conducted a focus group to explore student perceptions on what impact self assessment and supervisor feedback had on their learning.

Results

Students are more critical and discriminating assessors than supervisors when grading their performance categories by marking criteria.

For the performance categories agreement between students and supervisors was greatest for the following: Understanding BCS concepts, Investigations and Management Plan, Ethical Issues, Communication and Professional Behaviour; than for Patient History, Physical Examination, Case summary or DD and problem list.

Students construct high quality self-assessment.

Supervisor feedback has improved substantially.

Students reported that the requirement to self assess encouraged them to reflect on their learning and was beneficial. However they also asked for clearer learning objectives so that they could better assess their progress

Discussion

Students are good self assessors and this is part of the development of professional autonomy even though they may wish for better feedback. In this small group discussion we will focus on the quality and value of student self assessment, the quality and value of supervisor feedback and this strategy as a technique for increasing dialogue between medical students and their supervisors.

Our data shows that student self assessment has improved supervisor feedback but in order to make our students more comfortable and confident with this process we need to provide clearer and more specific learning objectives.

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Linking learners with people and places to develop future local medical workforce

Robyn Hill, Gippsland Medical School, Monash University, **Daryl Pedler**, Gippsland Regional Clinical School, School of Rural Health, Monash University

Aim

To explore the development of learning relationships between first year graduate entry medical students and geographically distributed practitioners in the local medical workforce.

Background

For over a decade, undergraduate medical students in their 'clinical' years at Monash have been 'placed' in a range of clinical settings in the broad geographical region now aligned with the new Gippsland Medical School in Victoria. These placements have been arranged under the auspices of the two local Regional Clinical Schools of the Monash University School of Rural Health, and have ranged from nine weeks to 36 weeks. During these placements, and depending on the focus of the particular clinical year (Year 3—medical and surgical, Year 4—General Practice, Psychological Medicine, Women's and Children's health, Year 5—six pre-intern rotations) students are allocated to

a particular health facility or location where they interact with general practitioners, consultants and specialists and a wide range of health professionals as they work with patients and their families.

As the Federal Government allocates more medical places for existing and new Victorian and Australian medical schools, the clear message is that a key goal of this initiative is to have greater numbers of graduating medical doctors electing to join the rural and regional workforce in the foreseeable future.

Directions

Students enrolling in the graduate entry MBBS at Gippsland will spend the their first year (Year A) on the Churchill campus, and the subsequent three years (Years B-D) in the Gippsland and East Gippsland regions, with some experience in health facilities on the Mornington Peninsula and metropolitan Melbourne.

In a significant departure from the early years (Years 1 and 2) of the five year undergraduate MBBS, Year A students will spend 17 full days (one per fortnight) in supervised clinical placements—6 hospital based, 4 community health, 3 aged care and 4 in a general practice setting. In the hospital, community health and aged care placements students will be supervised by a clinical educator (from either nursing or allied health backgrounds) whereas in the general practice placements, it is anticipated that the general practitioner will be the primary supervisor (see Coles & French, 2007).

Over the four years of the graduate entry MBBS, students will be taught, mentored, supervised and assessed by a wide range of medical practitioners including general practitioners, hospital specialists and consultants in private practice. Developing productive learning relationships from the commencement of the MBBS, between the student and each of these practitioners focuses discussion about educational innovation in this paper.

Challenges for discussion

The aim of Year A general practice placements is to provide early linking of learners (medical students) with general practitioners and their teams. The immediate goal of this new experience is to prepare students for their Year B and Year C specialised experience with clinical staff and specialists in hospital and community practice. The long term aim is to encourage these students to view clinical practice in the local region as a preferred mode of professional life.

The challenges for academic staff of the new graduate entry MBBS are to:

- negotiate suitable clinical placements (particularly general practices) for regular Year A student placement;
- clearly communicate the aims of the Year A curriculum and university processes to assist the medical practitioners and their staff to provide suitable learning opportunities for the students in the early phases of their course;
- engage the medical practitioner as a mentor for the student as they support a community-based continuum of care for patients and their families, and work within rural and regional health care networks;
- provide strong links between the Year A clinical experience and Years B and C long-term clinical placements to develop a continuum of learning supported by established learning relationships, and
- design and provide appropriate support for learners while they are undertaking early and regular general practice placements.

F6—Learners 3

Enhancing medical student learning experience by reinforcing their information skills

Carol Newton-Smith, Sandra Carr, Helena Iredell, Catherine Clark, Fiona Lake, University of Western Australia

Background

During a Faculty review of Problem Based Learning (PBL) staff and students expressed concerns about the information literacy skill development of first year medical and dental students. Librarians had been providing formal instruction in locating, evaluating and using information. However, these information skills were not being reinforced during the PBL sessions. Students were not being given feedback on core information skills such as correct referencing, information searching strategies or critical appraisal of resources by tutors. In 2006 tutors were asked to provide such feedback to the students during PBL's. The purpose of this study was to evaluate the impact of this intervention on the development of information literacy skills in Year 1 medical students.

Methods

Participants in the survey completed a validated self-efficacy evaluation of their information literacy skills before and after the intervention in Year 1 and again 12 months later at the beginning of Year 2. Mann Whitney U tests and Kruskall Wallis tests were used to compare groups for knowledge and skills and analyse the association between exposure to the intervention and outcome.

Results

Seventy per cent (138) of the 197 medical students responded to the pre intervention survey, 68% to the post survey and 54% responded to the 12 month follow up survey. Participants' self rated ability was highest in the areas of knowledge of and adherence to plagiarism and intellectual property policy. Lowest scores were in areas related to evaluating or critiquing information and organising and recording search strategies. Significant ($p<0.05$) positive shifts were observed in self rated ability to reference correctly, organise information found, search systematically, critically evaluate information sources, make notes about information read and use a range of research tools. At 12 months, persistent significant positive shifts were observed for students self rated ability to search systematically, use a range of search tools and critically evaluate information($p<0.05$). Proportions of participants who agreed they practised information literacy skills were relatively constant over the period of the study.

Discussion

Results indicate some positive effects as a result of the intervention. More significant shifts may not have been observed over the long term because of a lack of reinforcement of the learning in second semester.

Let's get clever in helping our teachers discover their enthusiasm and talent for assessment

Jenny Savage, Flinders University

Despite ready agreement within our institutions to the principle that we should test students in the most fair and appropriate ways, reality finds many teachers lacking in the fundamental skills and passion for designing high quality tests and writing assessment items. This situation is understandable given that the primary role of most of our health professional teachers is not that of educator but biomedical scientist or health practitioner. Those with specialist educational expertise, most typically those in central Education Units, play a vital role in facilitating workshops to develop our teachers' skills in assessment. We do not, however, always manage this responsibility wisely. How can we improve?

Best practice evidence from many fields leads to a generalised recommendation that to optimise the chance of success with any complex project, we should proceed by a series of steps:

- Collectively, acknowledge our beneficial intent and the preparedness to learn.
- Acquire knowledge of relevant underlying principles and characteristics of our intended goals. Understand the essential requirements to optimally achieving these goals.
- Drawing on our own as well as externally-informed experiences, encourage proposal of a variety of strategies for achieving these goals.
- Looking within our local context, identify the major factors—technical and humanistic—most likely to facilitate or inhibit our success. Considering these, weigh up the likely effectiveness, efficiency and sustainability of each option. Select and develop our prioritised strategy.
- Put our plan (including its evaluation elements) into practice.
- Reward successes and replan.
- Act again …

If we expect success from our assessment workshops in terms of our teachers appreciating high quality practice and acquiring long-term expertise in applying their item writing skills, we should heed such wisdom. Too often we compromise our opportunity for successful outcomes for both teacher and School by not resisting that power-pressured call to 'Just quickly show me what to do'. By responding with an 'OK, do this, now do that' while omitting the educationally critical 'why/not' and 'how best/not' contextual discussions, or neglect to make a friendly, safe and validating workshop environment, we should not be surprised when our teachers do not discover their talents nor fire their enthusiasm for assessment from such sessions. Nor do we as the educator feel our professional field or our personal contribution has been valued. The clear challenge for staff developers is to design time efficient, emotionally supportive workshops that still effectively achieve our specific assessment goals.

This session will explore participant's experiences with this issue, their reactions to the response above,

and particularly in the context of an assessment item-writing workshop, seek examples of strategic ways to foster our success.

The development and use of a tool for assessing clinical competency and to provide formative assessment opportunities

Toby Gardner, Kathryn Ogden, Jenny Barr, Kim Rooney, Jan Radford, Launceston Clinical School, University of Tasmania

Background

In 2005, in response to a perceived need by our students and our educators, the LCS developed Patient Partner Program (P3), a curriculum integrated clinical skills teaching program for years 5 and 6 medical students. After two successful years of implementation and expansion to a fully integral part of the curriculum for senior medical students, a program evaluation is currently being undertaken.

In order to provide data about the development of students' clinical skills, we developed a rating instrument for clinical skills (RICS). The RICS has become more than an evaluation tool; it has been used as a learning tool for students, and a formative evaluation tool to provide feedback to students from their peers, experienced clinician/educators, and through their own self assessment.

Methods

Content for RICS was chosen through consultation with clinicians, educators, and the literature, based on identifiable behaviours that could be used to measure performance in five domains: Communication skills; History taking; Examination; Management; and Professionalism. A six point likert scale with descriptors was attached and the RICS was adapted for use by students as a self-assessment tool, and by their peers.

Thirty-six year 5 medical students were video-taped conducting a patient focused simulated consultation as part of P3. The consultation was in the presence of up to 4 peers and a GP tutor, all of whom rated the student during the consultation. The video-footage was subsequently viewed by clinician educators and the student, and assessment completed using RICS. Each student was then provided with a 'feedback tutorial' and the opportunity to view written feedback from their peers and the GP tutor.

Two student focus groups (student numbers=6 and 7) were conducted following this process to determine what impact, if any, RICS had on their learning.

Results

Results currently under analysis will include descriptive statistics of students' rating by clinicians across the five areas of competency, correlation of clinician and student rating using RICS, and qualitative data regarding the way in which students used the RICS competencies as a learning tool and formative assessment opportunity.

Discussion

While still in its infancy and undergoing refinements, we have found the RICS to be a useful learning tool for students and assessment tool for use in both formative and evaluative settings. Validity and reliability testing will occur throughout this year.

F7—Learners 4

'Definitely necessary, will be a valuable learning tool. But I don't want to be made to feel uncomfortable': Measuring the attitudes of medical students to peer physical examination from different international settings and over time

Andy Wearn, University of Auckland, New Zealand, **Charlotte Rees,** The University of Sydney, **Anna Vnuk,** Flinders University, **Harsh Bhoopatkar,** University of Auckland, New Zealand, **Paul Bradley,** Peninsula Medical School, UK, **John McLachlan,** Durham University, UK, **Niv Patil,** Li Ka Shing, Hong Kong, **Toshio Sato,** Sapporo Medical University, Japan

Introduction

In many schools, clinical skills and anatomy learning involves peer physical examination (PPE) as part of the process. Studies show that students are generally willing to engage with PPE and that their attitudes are related to their personal characteristics (e.g. gender and ethnicity), relationships and area of the body to be examined. Previous studies have been in single institutions and have not assessed the influence of PPE experience or whether attitudes change over time. This study sought to address both of these issues and to explore predictors of attitude using a validated instrument.

Methods

Design: Multi-centre, international, longitudinal study using an adaptation of the *Examining Fellow Students* (EFS) questionnaire.

Setting: Medical programs in six sites across five countries.

Participants: Medical students in year 1 of their program

Medical students at all six sites completed the EFS questionnaire at time 1, prior to any PPE format learning. Students at four sites completed a follow-up EFS at the end of the same academic year (time 2). The EFS asks students to indicate which of 12 body parts they would be unwilling to examine or have examined by a peer of the same or opposite gender and to provide some demographic data (gender, age, ethnicity and religious faith).

Quantitative analysis: Frequencies and descriptive statistics were calculated and relationships examined using univariate statistics. Hierarchical multiple regression models were developed to identify variables which predicted students' attitudes towards PPE.

Results

618 students completed the EFS at time 1. At time 2, 383/482 (88.7%) provided a follow-up EFS. Demographics varied between groups and will be presented. Male gender, older age and white ethnicity were positively associated with willingness to engage with PPE at time 1 (all $p<0.001$). At time 2, the positive associations were; male gender, white ethnicity and non-religious students ($p<0.01$). There were significant and complex relationships between school and attitudes to PPE which were best highlighted using a multiple regression model. There was stability in most variables from time 1 to 2 with the following variables predicting change; female gender or Auckland school predicted a conservative attitude towards PPE when examining; male gender predicted acceptability of same gender examination; female gender and Peninsula school predicted increased willingness to be examined by opposite gender peers, although absolute numbers were still higher for males.

Discussion

The study confirms a willingness by students to participate in PPE learning, but shows that predictors of engagement are complex and that attitudes do change after experience. There are clear gender, age and ethnicity differences which influence the manner in which students engage (school differences representing clusters of the other variables). We will discuss the implications of these findings for health professional educators involved in the design and delivery of programs using PPE. Comparisons with the experiences of other delegates will be sought and we will reflect on stereotypes in relation to PPE involvement.

Biography of presenter

Andy Wearn trained as a GP in the UK and held academic positions at The University of Birmingham. There he developed particular interests in skills learning and community-based settings. He came to NZ in 2001 to set up a clinical skills resource for three faculty programs and delivers an early skills curriculum for MBChB.

'I'd feel embarrassed if the people I see out of class had seen my privates': medical students' views of learning through peer physical examination

Anna Vnuk, Flinders University, **Charlotte Rees,** The University of Sydney, **Andy Wearn,** University of Auckland, New Zealand, **Paul Bradley,** Peninsula Medical School, UK

Introduction

Peer physical examination (PPE) is often used to help students learn anatomy and clinical skills. Previous research[1–3] exploring medical students' attitudes towards PPE has found that students are generally willing to engage in PPE. Research also suggests that students' attitudes are related to their demographic characteristics like their gender and ethnicity.[1–3] While these studies employ quantitative surveys, thus failing to explore why students possess the attitudes they do, the current study aims to explore qualitatively the views held by a large sample of first-year medical students at six schools in five countries (UK, Australia, New Zealand, Japan and China).

Methods

Medical students completed an adaptation of the Examining Fellow Students (EFS) questionnaire. This asks students to indicate which of 12 body parts they would be unwilling to examine or have examined by a peer of the same or opposite gender. It also asks students their gender, age, ethnicity and religious faith and three open-ended questions concerning their views about PPE: (1) what are your general views on students carrying out examinations on fellow students?; (2) if you have any concerns about carrying out examinations of fellow students, please state the reason(s) why; and (3) if you have any concerns about being examined by fellow students, please state the reason(s) why. Students'

responses to the open-ended questions (and their demographics) were transcribed and the transcripts were analysed using Framework analysis.[4] The four authors familiarised themselves with, and independently analysed, about 40% of the data in order to agree a coding framework. The coding framework was then employed by AW and CR to code all data using Atlas-Ti. The data was rearranged according to the sub-themes and this charted data was discussed with AV and PB in order to aid interpretation.

Results

Three key themes emerged from the data. The first, present and future benefits of PPE, illustrates the numerous benefits of PPE to students, such as helping facilitate their learning of clinical and communication skills, anatomy, professionalism, and team-working. The second, possible barriers to PPE, illustrates various factors that could act as barriers to PPE amongst students, including their concerns about intimate examinations, concerns about peer relationships and the unprofessional behaviour of their peers, concerns about body image, and cultural issues. The third theme, student stipulations for successful PPE, discusses the situational, social and environmental variables that students consider to be vital for effective and comfortable PPE, such as informed consent, privacy, choice and size of groups and supervision. In this presentation, we will also illustrate any patterns existing across the sub-themes in terms of students' demographic characteristics, such as their gender and religious faith.

Discussion

We will discuss the practical implications of these findings in terms of helping medical educators design and implement PPE programs using culturally sensitive approaches.

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Medical student exposure to intimate interactions

Deanne Sceales, Devini Ameratunga, Catherine Dugard, Robert Rawson, Vanessa Tatham, Jennifer Ralph, Australian National University

Introduction

The opportunity for medical students to interact with, examine and perform procedures on patients is paramount to ensuring competence and confidence prior to entering the medical workforce.[1,2,3] There is, however, a concern that medical students lack exposure with regards to intimate interactions, particularly students of male gender.[1,2,4] For the purpose of this paper, an intimate interaction is defined as any patient-doctor interaction which involves the taking of a sexual history, examination of the genitalia or a procedure involving the genitalia, for example a pap smear or vaginal swab.

Objectives

The aims of this study were to examine the exposure of male versus female medical students to intimate interactions in a setting where patients have had limited previous exposure to medical students. Furthermore, this study aims to establish whether or not there is a difference in exposure for rural versus urban-based medical students.

Methods

Data was collected by third year medical students as part of the 2006 Australian National University Medical School (ANUMS) Health Informatics Project. Each student collected data on 30–50 consecutive patient interactions over a four week period in general practice and hospital environments, both in rural and urban locations. Of the 2231 student-patient encounters recorded in the database, 55 (2%) involved an intimate interaction. This sub-group was then analysed according to student gender, patient gender and location of student (urban versus rural) and differences in proportions were tested using chi-square analyses.

Results

Overall, male students were less likely to be involved in an intimate patient interaction compared to female students (OR 0.38; 95% CI 0.19 to 0.75, all P <0.05). Of these interactions, male students were significantly less likely to be involved in an intimate interaction involving a female patient, compared to female students (OR 0.42; 95% CI 0.19 to 0.89, all P<0.05). When comparing student location, rural students were more likely to be involved in an intimate interaction involving a female patient compared to urban students (OR 1.92; 95% CI 1.00 to 3.65, P< 0.05, Yates P value

borderline). It was found that female rural students were more likely to be exposed to intimate interactions involving a female patient compared to urban female students (OR 2.75; 95% CI 1.32 to 5.76, all P<0.05).

Conclusions

Female medical students were more likely to be exposed to intimate interactions than male medical students. In a rural setting, students were more likely to be involved in intimate interactions with female patients than in urban settings. These findings have important implications for future medical curriculum design.

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F8—Linking 4

Different pathways, same ends: core psychiatry experiences in a community-based clinical program

David Prideaux, School of Medicine, Flinders University

Introduction

In Year 3 of the four year graduate entry medical course at Flinders University students opt for different clinical programs driven by a common set of outcomes and assessment. One pathway is The Parallel Rural Community Curriculum (PRCC) which enables students to take core rotations in groups of eight in rural general practices and associated hospitals in three different locations. Research has shown that the performance of the PRCC students is superior to that of students in other pathways. In 2005 psychiatry was moved from Year 4 to Year 3 of the medical course and hence had to be offered through the multiple pathway approach. Concern was expressed by metropolitan psychiatrists about coverage of in-patient psychiatry and PRCC students were required to undertake additional experiences in psychiatry in the following year.

Methods

Fifteen of the sixteen students undertaking the additional experiences in 2007 were interviewed about their perceptions of psychiatry learning experiences. Data were analysed and categorised.

Results

The majority of students perceived they had sufficient exposure to core psychiatry in the PRCC programs and claimed that they did not require the additional time in the following year. All had achieved required assessment standards. There were important differences among the three sites. These related to the degree to which the staff had structured the program, student initiative in seeking out learning experiences and opportunities to follow patients to larger centres.

Conclusions

Perceived coverage of core psychiatry learning experiences was not necessarily related to location in large hospital or community settings. Rather it was related to degree of structure of the program and student initiative together with access to a variety of patients. This calls for a clear definition of the required psychiatry learning experiences across all sites, whether hospital or community-based, and the methods by which they can be gained.

Building communities of practice in clinical education through blogging

Richard K Ladyshewsky, Graduate School of Business, **Peter Gardner**, School of Physiotherapy, **Peter Robinson**, School of Physiotherapy, Curtin University of Technology

The novice clinician spends a large amount of time in new clinical activities to develop their clinical knowledge base. This development can be supported by peers, which is supported in the research as a strategy for the promotion of CR. Peers are a compelling and safe source for discussions involving clinical practice which are less threatening than those that involve supervisors. Given this proposition, it is appropriate to consider ways of building this network to assist the novice with their clinical reasoning (CR).

The focus of this study, therefore, was to examine whether peer learning and the use of 'blogging'

supports the CR of the novice. A blog is short for web log and is written by individuals or groups of people on the world wide web. It is analogous to a journal. In this study, 38 final year physiotherapy students were randomly assigned to blogging groups of five, each with an academic moderator. Students were required to blog on the broad topics of professional practice and evidence based practice during their clinical placements. Focus groups were conducted with students and academic moderators to gain insights into the benefits of blogging and the operational aspects of this initial experiment.

Academic moderators found students to engaged in discussions about clinical practice. They had to refrain from taking too 'active' a role to ensure they did not shift dependence onto them as the experts. They gained many insights into the challenges students face during fieldwork.

Students enjoyed the simplicity, accessibility and convenience of blogging. They learned a lot from each other and also gained access to information about other placements. They appreciated knowing that they were not alone in their struggles and the social connection to classmates was valuable.

Low participant bloggers reduced the value of the shared conversations concerning clinical practice. In light of this factor, students felt groupings should be larger (somewhere between 6 and 10) to counteract this problem. Confidentiality was an issue when writing about a placement or a supervisor. Professional practice blogs lended themselves to deeper and more challenging conversations whereas evidence based practice blogs were too straightforward and factual. The blog required students to reflect on their practice which they found beneficial. The blog was also a safe space to ask, 'stupid' questions. Trust emerged as students disclosed more and shared issues in a positive and constructive manner.

Both students and moderators felt stronger guidelines were needed to guide the conversations within the blogs. Introducing blogging earlier in the curriculum was also noted as it would strengthen reflective writing skills in preparation for full time clinical practice.

The outcomes of this study demonstrate that communities of practice, using blogs as the discussion medium, can build the capacity of the novice. The blogging experience was able to support students through a range of clinical reasoning challenges. Benefits for post-graduate study, rural and remote practice, and the everyday clinician are noted.

Acknowledgment

The authors wish to acknowledge the contributions of the following staff who assisted in this project: Ms Sue Jones, Ms Beatrice Tucker, Ms Penny Moss, Ms Stephanie Parkinson, Ms Amanda Bozikovic, Ms Constance Wiebrands. The contributions of students who participated in reflective focus groups is also acknowledged.

Extending the campus: rich learning pathways in ageing

Wendy Chesworth, Stuart Fletcher, University of Canberra

This abstract describes the learning framework for the unit *Physiotherapy in Ageing*. This unit is offered in the final semester of the Masters of Physiotherapy course at the University of Canberra. At this stage the students have developed sound assessment, treatment and clinical reasoning skills.

The design for this unit incorporates the principles of experiential and intentional learning. As part of the assessment students were required to interview, assess and design an intervention for two people in two residential care facilities using a problem oriented approach. These were documented in a report together with an evidence-based rationale for the interventions chosen. A four week interval was scheduled between the assessment and intervention. This provided valuable time for an intense block of lectures and workshops and enabled students to plan interventions that addressed the problems identified. Students then returned to their interviewees to implement their interventions. The second visit was documented by writing a report evaluating the implementation of their interventions. This 'real world' experience parallels what they could expect to encounter as physiotherapists and provides a stimulus for intentional learning.

This approach utilises the key attributes of two learning theories to provide a rich learning pathway for physiotherapy students in ageing. Intentional learning as described by Francis, Mulder and Stark (1995) as questioning, organising, connecting, reflecting and adapting. These attributes are embedded into the learning process. The principles of authentic learning also include reflection, although it primarily centres on how the experience impacted on the individual (Boud, Keogh and Walker, 1985). Both processes work together to provide a deep learning experience of the issues facing older people in residential care.

This experience was evaluated and the feedback and evaluation data was analysed to accurately determine student responses. The results of this evaluation indicated that this teaching and learning strategy had successfully achieved the specified aim of providing a rich learning pathway in ageing. Ninety-one per cent of students rated very highly that the visits had stimulated them to learn more than if they had done lectures alone and, or online learning without the opportunity to participate in this authentic learning experience. Students reported the experience had extended their understanding of this area of physiotherapy. For 81% of the students it had enabled them to identify areas where they needed to become more proficient. Almost all students responded very positively to the level of the tasks required of them during both visits and considered that they were within their abilities. Broader learning than just meeting desired competency standards also took place. For example, 89% of students responded with the highest rating that these visits enabled them to determine whether or not they would choose to do this type of work in the future.

This learning pathway incorporating an authentic experience and intentional learning proved to be highly effective and beneficial from the student point of view.

Abstracts—Saturday

G1—Linking 1

Planning for the future of allied health professionals: state-wide Allied Health Cancer Care Training and Development Program

Tanya Trevena, RBWH, Queensland Health, **K Whitfield**, Cancer Control Team, Queensland Health

Under the Queensland Government's Health Action Plan Cancer Funding Package there was a commitment of $1.7M in the 2006/07 budget for an Allied Health Training Program. In order to distribute and manage the Cancer Funding Package the State-wide Allied Health Cancer Care Training and Development Program was created. The aim of the project is to provide safe quality care for cancer patients throughout Queensland by ensuring an up-skilled Allied Health workforce providing evidence based clinical care. By using the Cancer Care Training and Development Survey, and Area Health Service Cancer Clinical Network – Workforce Training and Development Reference Groups, the project will identify and analyse data provided by Allied Health Professionals about the cancer care and palliative care related services they provide and what training they have had in order to provide this service. The survey is being distributed throughout Queensland Health during April 2007 and contains questions relating to professional development, research and personal demographics. The survey and the project will give clinicians an opportunity to have their say on what training they would like to have access to—from that which is currently being provided to what they would like to see provided. Results are predicted to highlight the perceived 'gaps' in Allied Health clinicians' cancer and palliative care related training and development needs. By identifying these 'gaps' in training and development, and through consultation with various stakeholders this project will provide pathways by which future training and development can be provided to Allied Health Cancer Care Professionals.

Integrating interprofessional learning into curriculum: addressing the challenges

Deborah McGregor, **Gillian Nisbet**, **Cheryl Hobbs**, University of Sydney

Evidence indicating that interprofessional collaboration in health care is an important contributor to positive health outcomes has prompted health and education organisations worldwide to review how professionals learn to work together effectively, especially at the pre-qualification level. In 2003, the University of Sydney introduced a practice-based IPL program involving students coming together for shared structured learning experiences centred around interprofessional teamwork. This program has been well received by students and clinical educators. However, due to a number of structural organisational challenges, the future sustainability and further expansion of the program is at risk. Challenges include lack of formalised integration of IPL into university curriculum, capacity issues within the health care system, partnership requirements between health and education organisations, and governance issues. An IPL curriculum framework is proposed which addresses these challenges. This framework integrates IPL throughout health care pre-qualification training, commencing in the early years of a program, culminating in practice-based IPL experiences. It incorporates campus-based and practice-based learning opportunities, and includes a range of delivery options including self-directed, online and face to face leaning. This PEARL aims to generate active discussion relating to the proposed framework with a view to identifying effective methods for addressing implementation challenges.

G2—Linking 2

Implementing peer and self-assessment to enhance learning outcomes in the biomedical and allied health sciences

Peter J Johnson, School of Pharmacy, **Roselyn Rose'meyer**, School of Medical Science, Griffith University

Due to increasing academic workloads and undergraduate class sizes, educators must adopt novel methods for assessing large classes, which not only improve learning, but are also time and cost effective. *Peer and self assessment* (PSA) practices, in which student work is assessed by fellow students

SATURDAY

and/or themselves, have been shown to reliably promote engagement with course content and improve learning outcomes and generic skills. Despite this, summative PSA of written assignments is currently used only sparingly in the biomedical and allied health sciences.

This paper outlines the implementation of PSA of written laboratory reports in an Introductory Pharmacology course within the Bachelors of Pharmaceutical Science/Biomedical Science/Health Science programs, and evaluates the validity of these assessments and effects on student learning and experience.

One hundred and thirty students (75 BPharmSci—2nd year of program; 55 BBiomedSci/BHealthSci—3rd year of program) completed the assessment item, a written report of a pharmacology laboratory experiment, which contributed 10% to the final course grade. Following the laboratory, students attended a workshop during which a generic criterion-referenced marking key was developed. Students then prepared and submitted their own reports, which were collated, de-identified and distributed at subsequent marking sessions. Each student marked three peer reports in addition to their own, and students were awarded the mean of the four marks their report received. All reports were later graded blindly by tutors and the lecturer for comparison. Students also completed questionnaires on attitudes to PSA before and after undertaking the task.

Peer marks were found to be highly correlated with marks awarded by the lecturer ($r=0.62$; $P<0.01$) or by tutors ($r=0.53$; $P<0.01$). Peer marks showed a similar range and variance to faculty marks. Peers were more lenient than faculty, with mean peer marks 8% higher than those awarded by the lecturer. Self assessments were less correlated to lecturer marks ($r=0.31$). Students who scored poorly on the task were more likely to overestimate their own mark than students who performed well. In contrast, the ability of students to accurately assess their peers (as indicated by deviation from marks awarded by the lecturer) was not correlated with student performance. Overall, 63% of students received a PSA mark within 10% of that awarded by the lecturer, 32% received a mark 10–20% different, while less than 5% received a grade that was greater than 20% different.

Students perceptions of the process were positive. Fifty-five per cent of students indicated that participation in the task enhanced their learning and 65% felt it helped them understand the requirements for good quality work. Only 15% of students felt that the mark received for the PSA item was inaccurate.

In addition to the results above, other issues will be explored, including:

- organisational issues
- correcting for rogue markers
- time and cost savings of PSA
- using PSA to provide relevant and timely feedback
- student and faculty attitudes to PSA.

Tackling the challenge to provide improved teaching in chronic disease management

Jan Radford, Launceston Clinical School, University of Tasmania, **Kathryn Ogden, Jenny Barr, Toby Gardner, Kim Rooney**

Background

With an ageing population and improved treatment for acute disease, there is an ever increasing number of people with chronic and degenerative disease, and with multiple co-morbidities, within the community. These demographic shifts have implications for medical training around the world.(Ebrahim 1999)

While most medical graduates will spend their future professional lives working in the community with patients with chronic disease and multiple co-morbidities(General Medical Council 2002), traditional medical education remains embedded within the hospital setting where the focus is on acute disease.(Nair and Finucane 2003) When students do have the opportunity for community placements, the teaching is haphazard with a focus on clinical care rather than systematic and student centred. New strategies need to be developed if medical education to address this imbalance.(Nair and Finucane 2003)

Such a strategy has been developed at the Launceston Clinical School (LCS), University of Tasmania, where the Patient Partner Program provides an opportunity to align a real patient with chronic disease, or diseases, to the Case Based Learning (CBL) curriculum.

What is P3?

The Patient Partner Program (P3) is a curriculum integrated clinical skills teaching program for years 5 and 6 medical students. Patient Partners are systematically recruited from the community to

participate in weekly clinical teaching sessions which are facilitated by GP mentors who are skilled in the management of chronic disease and co-morbidity.

How can P3 enhance teaching of chronic disease management to undergraduates?

It is the following aspects of P3 that combine to provide an effective method for teaching chronic disease management:

- Aligning cases with CBL topics puts a face and a story to the condition.
- The use of GP tutors as facilitators and mentors provides expertise in the management of chronic disease and co-morbidities, in addition to professional role modelling.
- The Patient Partners themselves are living with chronic disease and are active participants in the educational process.
- By providing regular, managed, clinical learning opportunities we ensure coverage of a wide variety of topics in a systematic way.

Key points

Traditional hospital based teaching does not cater for the educational needs of tomorrows graduates. By providing regular, managed, clinical teaching sessions with patients from the community who are living with chronic disease, and facilitated by GP tutors who are skilled in dealing with chronic disease and juggling co-morbidity, we have developed an educational model that allows a focus on chronic disease.

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G3—Linking 3

Developing a personal formulary: helping students get to grips with clinical pharmacology

David Tordoff, David Reith, Dunedin School of Medicine

Ongoing evaluation of the undergraduate medical curriculum has consistently identified clinical pharmacology as a perceived area of weakness by the students. Developing a deep understanding of the major drugs in use and an ability to prescribe them accurately and safely are of paramount importance. This project builds on recommendations from the World Health Organisation on developing a personal formulary by students and work by David Reith to establish the practice here at Otago.

Rather than student's rote learning a list of drugs and related data in isolation, good educational practice suggests that learning about drugs in context will lead to a deeper understanding.

At the present time students have little experience in writing prescriptions before qualifying. This is of concern when 10% of complaints to the Medical Council of New Zealand relate to prescribing errors.

Through this project students are presented with a series of short case studies relating to the clinical attachment they are undertaking. Each case study focuses on a core drugs group taken from the 'essential learning drugs list' and is available on Blackboard. Links to some common resources are provided. The student identifies an appropriate drug and finds the required information. Their choice is discussed between peers. This information is added to their personal formulary. Additionally we suggest they report on an observed case which illustrates their drug choice and contribute resources to the group site. Following this, each student prepares a prescription for their drug of choice relating to the original case study. This is submitted to an assessor who provides appropriate feedback.

During the clinical years of the undergraduate program students are allocated to a wide range of clinical experiences throughout Otago and Southland. The e-learning environment enables students to seek out and share resources and peer review their work wherever they are based at the time. Student progress and discussion is monitored by staff and feedback/support provided as required.

At the present time the project involves year 5 students throughout the year at DSM and year 5

SATURDAY

students on the Medicine attachment at Wellington School of Medicine and Health Sciences. The marking and feedback is provided by a part time pharmacist appointed to the project.

Main learning outcomes of the project

By the end of the project each student will have:

- an in-depth understanding of a core selection of drugs
- a personal formulary on which to build future prescribing knowledge
- an appreciation of the importance of safe prescribing and consequences of medical error in this area
- an ability to write a safe, error free prescription
- a knowledge of the range of relevant, research based information and sources available to support prescribing practice and an ability to assess its validity.

Linking basic physician trainees, training physicians and health services in the Victorian consortium model of basic physician training

Ka Chun Tse, Greater Western Consortium of Basic Physician Training, Western Hospital

In 2004, the Victorian Department of Human Services established the Medical Workforce and Training Advisory Committee to identify issues and solutions for attracting junior medical staff into the Victorian public health system in an equitable manner. Recognising that junior medical staff are motivated by training opportunities and basic physician trainees constitute an area of need, this resulted in the organisation of all Victorian health services involved in basic physician training into one of five consortia of basic physician training. The portfolios of the consortia are basic physician trainees in their second and subsequent years of basic physician training. The Victorian consortium model follows in the footsteps of the New South Wales consortium model of area health services.

Under the consortia model, inner and outer metropolitan as well as rural health services are required to work together, along with basic physician trainees and training physicians, to fulfil service delivery requirements and provide training opportunities in an equitable manner within each consortium. The first cohort of basic physician trainees to be employed and trained under the consortium model is the 2006 cohort.

The Greater Western Consortium is one of the five consortia of basic physician training. Member health services include: Melbourne Health, Western Health, Ballarat Health Service, Northeast Health Wangaratta and Wodonga Regional Health Service. Through a small group presentation under the 'Linking' theme in the 2007 ANZAME Conference, it is hoped that the experience of the Greater Western Consortium over the past one and a half years could be shared with colleagues in Australia and New Zealand, and vice versa.

G4—Learners 1

What are the skills and attributes that a pharmacist (or any health care worker) requires to remain relevant for the health workforce of the future?

Gabrielle Cooper, **Stephen Carter**, **Deane Dight**, Pharmacy, University of Canberra, **Claire Bekema**, Pharmacy Department, The Canberra Hospital, **Toni Green**, Physiotherapy, University of Canberra, **G David Lin**, Pharmacy, University of Canberra

Traditional Pharmacy degrees from Australian Universities have focused on instilling knowledge that replicates the practice of pharmacy over the last 100 years. But what knowledge and skills are required for the practice of pharmacy into the future? What skills do the applicants into programs believe they require that will enable them to adapt and cope with the changing nature of health care provision?

With the opportunity to establish a new graduate program in Canberra in 2004, this question was at the forefront of our vision and planning. The attainment of knowledge, specific skills particular to the profession, high level problem solving, the ability to work in teams and the ability to communicate using both oral and written forms where identified as essential by both students and staff. How could these attributes be achieved within financial limits?

Innovative collaborations with other health care students and the use of practice based placements were used to enable the students to experience theory into practice. Sterile laboratories were avoided and practice based exercises, that showed relevance of theory, were developed to be used throughout the program. Units were integrated to

support learning across the course and between professions.

The support from those within practice and their ancillary staff enabled the program to be varied and challenging for these more mature students. Feedback from those directly involved with the new students supports achievement of our vision.

Biography of presenter

Associate Professor Gabrielle Cooper graduated from University of Tasmania Pharmacy School in the early eighties. Gabrielle has worked in research and clinical pharmacy practice in Canberra, Hobart, Sydney and London. Gabrielle undertook her PhD at the Canberra Clinical School of the University of Sydney, whilst working part-time in the Poisons and Drug Information Service at The Canberra Hospital and as Director of Pharmacy at Calvary Healthcare-ACT.

In 2004 she established the first Pharmacy program in Canberra at the University of Canberra. The Master of Pharmacy program is one of the first graduate programs in Australia and focuses on the production of pharmacists who have the capacity to work across the many and varied areas of modern pharmacy practice.

Enhancing student feedback across the faculty: linking learning and feedback for students

Sandra Carr, Diana Jonas Dwyer, Zarrin Siddiqui, Gina Arena, Fiona Lake, University of Western Australia

Background

The Course Experience Questionnaire (CEQ) results for undergraduate courses offered by the Faculty of Medicine, Dentistry and Health Sciences at the University of Western Australia (FMDHS) are from a mixture of students who have undergone professional and course work courses. The lowest results from recent surveys were for 'Good Teaching' and 'Learning Community'. Extensive evaluation over years has noted students frequently do not feel they received adequate feedback from their teachers.

In 2006 a project was developed focusing on student and staff perceptions of the adequacy of current feedback, preferred feedback models, and the development, implementation and evaluation of an enhanced feedback system within the Faculty of Medicine, Dentistry and Health Sciences.

Purpose

The purpose of this presentation is to describe student and staff perceptions of the adequacy of current feedback, preferred feedback models, and explain the development and implementation of enhanced feedback mechanisms for students in the Faculty of Medicine, Dentistry and Health Sciences.

Methods

A number of methods were used to obtain data on feedback from the Faculty. These methods included:

- The feedback mechanisms and models being used across units within the Faculty were audited via a survey to all unit coordinators.
- Student focus groups with participants from each of the undergraduate courses (Medicine, Dentistry, Health Sciences, and Podiatry) were conducted to explore the effectiveness of current feedback models.
- Course Evaluations from all years of the undergraduate courses (in 2005) within the Faculty were reviewed with all comments relating to feedback were extracted and explored.

Results

Gathering the data revealed the complex nature of student feedback. Factors that required consideration included the models and modes of feedback; the feedback environment; the timing of feedback, and the skills and abilities needed by staff and students to be able to give and receive effective feedback. Units or areas wanting to improve their feedback processes based on suggested models were also illuminated.

Discussion

Work has begun on the development of five targeted projects to pilot alternate feedback models. The pilot projects are looking at ways to improve verbal and written feedback through formal and informal mechanisms and are being trialled in a range of settings across the undergraduate courses in the Faculty. If successful, these pilot projects will be implemented across the Faculty in 2008.

Application of business principles in integrated clinical medical education

David A Kandiah, School of Medicine, Griffith University

Postgraduate Business Education has become sophisticated with the use of principles from a number of Professional Areas in providing Integrated Education. Many of these principles can be applied in Health Professional Education.

The ones selected in this educational approach were that of the Japanese Business principles of Kaizen and Poke Yoke. Kaizen is the Japanese term for continuous improvement. 'It is both a rigorous, scientific method using statistical quality control (SQC) and an adaptive framework of organisational values and beliefs that keep workers and management alike focused on zero defects.' (Morris, 1995) It is a philosophy of never being satisfied with what was accomplished last week or last year. The link between Kaizen and the Clinical Skills planning process is clear. Quality Circles within the team framework decentralise responsibility for improving processes. It is the team's responsibility to improve current systems and procedures.

Poka-yoke (ポカヨケ—pronounced 'POH-kah YOH-keh' means 'fail-safing' or 'mistake-proofing'—avoiding (*yokeru*) inadvertent errors (*poka*)) is a behaviour-shaping constraint, or a method of preventing errors by putting limits on how an operation can be performed in order to force the correct completion of the operation.

In this presentation, these principles are discussed in the context of Integrated Clinical Medical Education. These principles have been applied in teaching a number of clinical skills. The success of these applications can be seen from the student feedback and ward performances of our clinical students.

Supporting students in a mobile learning environment

Sarah Hyde, **Chris Roberts**, Centre for Innovation in Professional Health Education and Research, **Daniel Burn**, Faculty of Medicine, IT Unit, **Chris Liddle**, **Discipline of Pharmacology, School of Medical Sciences, Robert Pearce**, Faculty of Medicine, IT Unit, The University of Sydney

With the advent of new technology and reduced costs, making it more accessible to the wider population, new learning environments can be created. We have moved on from e-learning to m-learning, (Mobile learning). Essentially, devices such as the i-Pod, mobile phone, and personal digital assistants (PDAs) are being purchased and used as communication and planning tools. The adaptation of existing computer software for these mobile devices has made information increasingly more accessible and the term 'ubiquitous computing' has been used to synthesise the ideas of both wireless and mobile learning (Alexander 2004). PDAs in particular are gaining increasing popularity amongst medical students and the profession because of the quick access to drug information and other medical reference software, allowing information 'on-demand. What effect does this have on learning however? What is the potential for learning in such an environment? Most importantly, if it is decided that the mobile learning environment is advantageous to students, then what infrastructure is needed to support students in accessing this, both financially and pedagogically?

The short term aims of this project are to investigate the use of PDAs and other mobile computing equipment in medical students. A literature review has been conducted which has informed the design of a survey for this purpose. The survey was administered electronically to all students enrolled in the University of Sydney medical program. The results of the survey, have informed the faculty of how many students already have a PDA, how they are being used, what support needs they have, how many students would like to purchase one but are unsure about its usefulness, potential usefulness in the clinical setting, and barriers to use. The long term aims of this project are to investigate the use of this tool in the clinical environment for clinical assessment tasks.

This presentation will discuss the results, how they are being used to inform decision making and meet students' needs and how m-learning can be used to complement existing learning and teaching activities. It is envisaged that the results of this study will be useful for other universities and clinical

schools, as well as aiding decision making and addressing gaps in the literature.

Biography of presenter

Sarah Hyde is a Lecturer in Medical Education and PhD student investigating students' use of self-regulated learning skills in problem-based learning and clinical learning contexts. She is based at the Orange campus of the School of Rural Health and has a particular interest in how students learn in different contexts, evaluation, and problem based learning.

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G6—Learners 3

Meeting the drug information needs of university students: the effectiveness of an online drug and alcohol awareness program

Kathy Robinson, Vanessa Hughes, School of Arts and Sciences (NSW and ACT)

With support from the NSW Drug and Alcohol Taskforce initiative a concerted effort was made to integrate drug and alcohol information into generalist degrees.

As part of the official orientation week program, a Drug and Alcohol awareness session was presented to commencing Business, Environmental Science and Nursing students. In order to further support this initiative, a Drug and Alcohol awareness site was created on WebCT. All ACU students and staff across six campuses were given access to this unit and staff were invited to contribute relevant teaching and support material to a protected folder accessible to staff only.

Material from the information sessions held in orientation week together with a presentation on Substance Abuse was placed on the Drug and Alcohol awareness site. An online assessment was developed for this unit to reinforce Drug and Alcohol information. Students (and staff who had studied the material) contained in the Drug and Alcohol brochure should have been able to complete the online assessment and obtain a perfect score. The question set was randomly scrolled so that users were exposed to different questions every time they attempted the quiz. Those who obtained perfect scores were issued with certificates stating that they had satisfactorily completed the Drug and Alcohol awareness program.

The need for this type of program was evidenced by a very high utilisation of the WebCT site. Between 16 February and 7 May 2007 a total of 19 423 user sessions were recorded. On average, there were 414 user sessions per day, with 467 user session per weekday and 257 user sessions per day on the weekend during February and March. The Drug and Alcohol site was more frequently accessed (approximately 70%) by commencing students than by continuing students. While staff participation was limited, most new teaching assistants spent time on the site.

The drug and alcohol awareness brochure 'Drugs and Alcohol—The Facts' which was handed out during orientation week at the North Sydney campus was downloaded 3544 times. Additional material about substance abuse was also provided and was downloaded 2382 times. The total number of items downloaded was 5936; representing enormous interest in the information provided.

By 9 March 2007, students had made 1304 graded attempts at the online Drug and Alcohol awareness assessment. Of these, 490 students obtained perfect scores and were issued with a certificate. Many students included their certificates in their CVs. Students and SRC members served as active and vocal advocates for the unit.

The amount of interest generated by this project has been enormous. While good attendance was expected at the live presentations during Orientation week the level of interest generated by the online unit was far beyond expectation. There is very obviously a need for good accurate drug information and a university is seen to be a trusted source.

Development of a learning diary linked to a generic curriculum for trainee pathologists

Wendy Pryor, University of Sydney and Royal College of Pathologists of Australasia

Background

Medical specialists have broad roles in the community and the workplace. The CANMeds framework defines these roles as Professional, Communicator, Collaborator, Scholar, Manger and Health Advocate. The Royal College of Pathologists of Australasia (RCPA) has developed a Generic Curriculum based on this model. The RCPA Generic Learning Diary has been designed as a formative assessment tool linked to the curriculum. The diary

was conceived to facilitate reflective self-directed learning through a cyclical process of self-assessment, learning needs identification, action planning, documentation and supervisor feedback.

Aims

To develop a Learning Diary model that optimises educational benefit balanced with acceptability to work-pressured and often sceptical trainees and their supervisors.

Methods

An initial Learning Diary model was developed by the Centre for Innovation in Professional Health Education and Research at the University of Sydney. Following presentation of this model at RCPA workshops throughout Australia and New Zealand, a simplified version was pilot tested in late 2006. Participants completed online questionnaires following the study, and 12 completed diaries were submitted and analysed. Semi-structured interviews were conducted with the 12 trainees who submitted the diaries, 10 supervisors who assisted them and a number of other stakeholders including medical educationalists, a representative of the Australian Medical Council (AMC) accreditation team, RCPA administrators and representatives of the physicians' college. A grounded theory approach was used to analyse the interview transcripts. A modified Learning Diary model is being presented at workshops throughout Australia, New Zealand and Southeast Asia. Participants are invited to complete written feedback surveys.

Results

Trainees and supervisors readily appreciate that the Learning Diaries will draw attention to important outcomes not explicitly addressed in the past. Whilst pathology training is self-directed in nature, most trainees have expressed considerable resistance to a reflective process that requires them to document self-assessment, learning needs and evidence of learning. Many demand a prescriptive approach with a 'tick-box' format whilst others want more flexibility.

Pressures of service provision and preoccupation with formal examinations are cited as strong reasons for resentment of spending time on planning and documentation. There is a general perception amongst trainees and supervisors that this is a bureaucratic imposition by the AMC and many are unconvinced of the educational benefits.

A simple electronic format with clear instructions, good examples, a substantial set of learning resources and strong support from supervisors will be critical for success.

Compulsory submission and linking of curricular content to assessment will be necessary for compliance. However many of the competency areas defined in the curriculum are seen as nebulous and difficult to document and assess. Clearly defined behavioural outcomes will be necessary for them to be seen as relevant, achievable and assessable.

Conclusions

It is a challenge to develop a flexible set of tools to suit a variety of learning styles that will provide a strongly supported framework that encourages reflective learning, is not too prescriptive, but is acceptable and relevant to RCPA trainees and supervisors. An emergent model will be proposed, and the implications for other settings will be discussed.

G7—Leaders 1

How does population/public health fit into an undergraduate medical curriculum

Barbara O'Connor, Faculty of Medical and Health Sciences, **Chris Bullen**, School of Population Health, **Phillippa Poole**, Medical Programme, University of Auckland

Introduction/background

The University of Auckland's outcomes-based medical curriculum has Population Health and Primary Health Care as one of its four domains, with an appropriate suite of learning outcomes. Initial attempts to embed this domain more deeply included putting criteria from this domain on all Clinical Supervisors' assessment forms, encouraging clinical departments to include population health aspects in case reports and requesting lecturers in the pre-clinical years to incorporate related aspects into courses. While some integration has occurred, the achievement of the actual learning outcomes could best be described as patchy and less than explicit.

Notwithstanding these attempts, and learning from others that a vertically and horizontally integrated approach to population health is not necessarily sufficient, the curriculum committee played a leadership role in ensuring this was more than a 'Cinderella' topic. The committee approved a standalone innovative learning week for Year 5 students, dedicated to population/public health, called Population Health Intensive, which ran for the first time in May 2007.

Purpose/objectives

The purpose of this paper is to outline the obstacles, innovations and outcomes from Population Health Intensive.

Initial barriers to the implementation of a standalone week will be outlined, including those from students 'while students appreciate the importance of population health, the feeling is that it is at the cost of essential teaching'.

The week incorporates significant opportunities for student contact with community agencies, direct contact with public health and general practice trainees, consultants and policy-makers, as well as with practising clinicians who 'work in both worlds'. Learning experiences include small group work, a DVD interspersed with an interactive keypad question and answer session, a debate with high profile clinicians and two main lectures.

A number of the innovative aspects of the project will be described, in particular:

- the Keynote address and Symposium to introduce the week (and how this was funded);
- the role of Public Health Medicine and General Practice Registrars as small group facilitators;
- the inclusion of a session on public health response to a crisis, together with its impact on students; and
- what students could complete to gain an individual distinction grade.

By the end of the week, each student group was required to develop and present a feasible population health strategy, using a notional $0.5 million, to address an issue in the NZ context for an identified population group(s), appropriate to the amount of resource available. Students were awarded a pass or fail, according to a number of clear criteria including justifying why this strategy was chosen, why it might be excepted to be successful and outlining how they would evaluate its impact.

The outcomes of the evaluation of this initiative will be presented, including feedback on the selection of small group topics. Plans for future modifications to the week will also be outlined.

Issues for exploration/ideas for discussion

What is the appropriate balance between standalone activities (such as Population Health Intensive) and integration in the curriculum?

How to inform external opinion leaders of the benefits of involving experts for the learning of 'Cinderella' topics

Alternative methods of assessment

Other topics that could be used to focus on Population Health

What is the desired suite of learning outcomes in Population Health at undergraduate level?

A practical and sustainable approach to the delivery of a year-long undergraduate community-based placement to deliver clinical training in psychiatry, women's health, general practice and children's health

George T Somers, Monash University

Hospital in-patient stays are becoming shorter and are now often limited to specific procedures, with much of the patient work-up and aftercare being delivered in the community. Therefore, traditional hospital-based clinical medical education is becoming scarcer and less appropriate to the needs of medical students. The recent upsurge in the allocation of medical school places will put what many consider to be untenable strain on the clinical education of medical students.

This paper addresses the increasing need for community-based medical education (CBME) and the demands this will place on community health services. It will outline the obstacles to CBME as perceived by community educators, medical students and by university departments. A model that seeks to address the majority of these issues will be presented, and practical solutions to the perceived barriers will be outlined.

The pivotal role of the academic general practice as the base within the community for the delivery of clinical training, especially in the 'generalist' specialties of women's health, children's health, general practice and psychological medicine will be outlined. In most Universities, these four disciplines are taught in the one year. At Monash University this is the fourth year of the course.

The academic year, in the model to be discussed, is divided into three terms: GP-Women's Health, GP-Children's Health and GP-Psychological Medicine. The model is based on a year-long attachment of students to a specific community. Their activity will be based in a single general practice. The GP

Curriculum will be delivered over the whole year, while that of the other three generalist disciplines will be delivered predominantly, but not wholly, during the three allocated terms. Students will split the week between the GP and the community-based health workers who deliver that discipline. The program is supported by weekly discipline-specific videoconferencing. Throughout the year there are several structured all-discipline release weeks at the main campus, during which the whole year-group meets and has the opportunity to bond and share experiences. This adds to group cohesion and to educational consistency.

Academic general practice has been found to be more attractive to the new cohort of medical graduates and offers opportunities for a more sustainable GP workforce, particularly in rural areas. Issues including the recruitment and appropriate payment and training of GP supervisors and educators, academic, financial and administrative support, and infrastructure requirements will be discussed. Attendees will be invited to share their concerns and to offer solutions, so that the proposed model can be strengthened, and variations identified that may be applicable to their circumstances.

Biography for presenter

Dr Somers has worked in his general practice in Emerald, Victoria for more than 25 years. He completed his PhD at Monash University in 2005, when he investigated medical students' attitudes towards a rural health career.

He was Senior Lecturer in General Practice and Rural Medicine at the Bendigo Regional Clinical School until recently when he returned to expand his practice in Emerald, Victoria. He continues as a medical educator for ACRRM and RACGP at Victoria Felix, Bendigo, under the Enhanced Rural Training Framework Program while he ponders his academic future.

G8—Learners4

Can empathy be learned online? A comparison of three pedagogical approaches in a MBBS program

Louise Young, Jennifer Fitzgerald, Geoff Mitchell, School of Medicine, University of Queensland

At whatever age and stage of the life span, dying patients and their significant others need carers who are equipped to communicate empathically. While the importance of good communication skills for health professionals is well established, questions remain as to the most effective way of teaching and assessing the core skill of empathy involved in such communication. The purpose of the current study was to examine a brief intervention that aimed to teach communication skills for a palliative care setting using the educational approaches of large group, small group and on-line learning.

Second year MBBS students (N=55) from the University of Queensland volunteered to participate in the evaluation. Students were randomly allocated to three different learning experiences—large group (n=27), small group (n=18) and online (n=10) for the teaching of empathic communication in a palliative care setting. Large group sessions contained 12–15 students and a clinician teacher, small group sessions had 5–6 students and a clinician teacher while the online activity was completed individually in the student's own time. All groups utilised the pilot program developed by the Department of Health and Ageing called Palliative Care Curriculum for Undergraduates (PCC4U)—a resource to teach empathic communication to undergraduate health care students. All students were exposed to identical content, however the method of delivery and expert teacher input varied.

Students in small and large groups were exposed to a 90-minute communication for palliative care training session, using PCC4U Modules one and two. These included an interactive discussion with the teacher regarding the needs of dying patients and a video of a standardised patient talking about her experiences and feelings, from diagnosis through to approaching death. Students practised role plays of empathic communication. Those who completed the module as an online activity did not have any expert teacher input other than in the content of the online materials.

Typical of most professional development, students rated learning changes on a 5 point scale as improving their confidence and skill level in communicating with palliative care patients $t(55)=19.14$ ($p<.001$) *Pre-education* M=3.02 (SD=.63) *Post-education* M=3.51 (SD=.56). Results indicated that more empathy was identified after the educational session than before. Quantitative results showed no statistically significant difference between teaching groups, although qualitative results did highlight differences which have implications for the teaching of empathy in undergraduate health programs.

Changes in students' knowledge, skills and attitude: results from pre-registration interprofessional learning workshops

Louise Young, **Claire Jackson**, School of Medicine, **Bronwyn Davidson**, School of Health and Rehabilitation Sciences, **Treasure McGuire**, School of Pharmacy, **Elizabeth Ruddy**, School of Nursing, University of Queensland

Interprofessional learning is an educational intervention during which members of more than one health and/or social care profession learn interactively together. It can contribute to an increased level of critical thinking among health professionals, a positive working environment and improved patient health outcomes.

The aim of this project was to evaluate the impact of pre-registration Interprofessional Learning (IPL) workshops on health science students' self-reported knowledge, skills and attitudes to interprofessional practice. Medical, nursing, physiotherapy, speech pathology and pharmacy students (N=159) participated in interprofessional learning workshops during four successive rotations in 2006. Each workshop focused on a different priority health area, namely elderly and frail patients, cardiovascular, chronic disease and failure to thrive. The workshops used case-based learning and included an expert panel presentation, student discussion of case, and a team exercise modelled on a Medicare Team Care Arrangement, where students from different disciplines completed a multidisciplinary patient Careplan.

Students were evaluated, pre- and post-workshop, regarding their knowledge, attitude to interprofessional practice and their attitude to learning with students from other health professions using the Clinical Interprofessional Learning Scale which was developed for this project. This evaluation comprised a number of validated tests of interprofessional learning including the Readiness for Interprofessional Learning Scale (Parsell & Bligh, 1999).

Statistical analyses involved paired t tests and univariate analysis of variance. Students' perceived knowledge was significantly higher, ($t(157)=18.99$, $p<.001$), after participating in the workshop (m=4.01, sd=.50) than before (m=2.93, sd=.74) on a five point Likert scale in areas of patient management, nature of assessment and management, roles and goals of the interprofessional team, extent of management and responsibilities of the health team. There was no statistically significant difference in knowledge between professional groups i.e. the workshop was beneficial for all students and all self-reported improved knowledge. Knowledge of interprofessional care improved for each professional group in each of the four different workshops.

Results for the Readiness for Interprofessional Learning Scale showed there were no overall statistically significant profession differences in attitudes to IPL on a 5 point Likert scale $F(3, 152)=1.02$. All agreed or strongly agreed that interprofessional learning was beneficial. Individual item means for positive items ranged from 3.40–4.29, (sd=.32-.62); and means for negatively scored items ranged from1.75–2.52 (sd=.79–1.13). Individual subscale scores for teamwork and collaboration, professional identity and roles and responsibilities for each profession were also analysed.

The results demonstrate that IPL, in the form of shared workshops using authentic and active learning, is a valued educational intervention for effecting change in knowledge and for building experience in interprofessional practice for medical, nursing, allied health and pharmacy students. IPL is important for building skills and capacity to work productively, efficiently and effectively in a health care system that requires increasing levels of professional collaboration and teamwork.

Reference

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SATURDAY

H1—Linking 1

Linking health professional students' learning and communities

Johnny Hall, **Heather Baker**, School of Nursing, University of Auckland

Over the past twenty years there has been a call for a shift away from a focus in health education on tertiary individual care to primary prevention and care in the community. There is evidence to support that community health nurses are still focusing on the medical illness model, seeing individuals as deficient and requiring intervention—thus limiting possible nursing actions. Placements in the community have historically focused on home help and family caseloads. As the health care systems move from a century long emphasis on treating sick individuals in hospitals and other institutions and towards community based management of acute and

chronic conditions, partnerships with communities are essential.

Service learning coupled with community based education is an effective way for educators to prepare nurses for their roles in health care into the future. Consequently structuring the curriculum to provide learning experiences that prepare nurses to meet the health care needs of aggregates and populations is an imperative. Students need opportunities to work both with and within communities as partners. The placement of students in a community setting for service is a means by which students can gain first-hand knowledge about the issues and problems of health care in the community. Service learning is a natural fit in nursing education because of the shared conceptual characteristics of student-centred, community-centred, and academic centred activities.

The Bachelor of Nursing program at the University of Auckland has sought opportunities for students to develop a community partnership focus in all aspects of their learning. One course, designed to benefit participant community organisations while simultaneously expanding the health promotion skills and knowledge of the students, will be explained. Examples of projects undertaken and evaluation outcomes from structured interviews with a number of the collaborating agencies will be presented. This evaluation has focused on the benefits and outcomes for the agencies of the projects and suggestions for improvement.

The course's main goal is to help students shift from conceptualising practice as a situation in which the nurse is in charge of an individual client's health care, to one in which the community is not only the focus for practice but more importantly, the community determines its assets, concerns and actions for change.

This presentation will also describe the learning experiences of nursing students undertaking this project.

Aspects of the learning experience to be discussed in the session include:

- value for the collaborating agency
- learning for the student from a student perspective
- involvement of the university
- change indicators from the projects for the agencies.
- examples of projects undertaken
- group dynamics
- the development of project management skills.

Success of the project as a learning tool includes students meeting their learning goals and clinical agencies being able to attend to projects that for which there would otherwise be not time.

Identifying aptitude for medical practice: how does the admissions interview rate?

Michele Groves, School of Medicine, Griffith University, **David Powis**, School of Biomedical Sciences, Faculty of Health, University of Newcastle, **Miles Bore**, **Don Munro**, School of Psychology, Faculty of Science and Information Technology, University of Newcastle

Despite the recent explosion in medical schools and medical student places in Australia, admission into medical programs remains a highly competitive process with demand far exceeding supply. In addition, intense community scrutiny of the health care system and the associated demand for public accountability has emphasised the responsibility of medical schools to select students with the personal qualities and attitudes required for safe, effective and ethical medical practice.

One commonly used method of selecting such students is by interview. Although structured interviews may have acceptable reliability, they are time-consuming, costly and labour-intensive for faculty and stressful for applicants. It is therefore crucial that they can be shown to be a valid and effective method of selecting applicants suited to the demands of modern medical practice.

The aim of this study was to describe the relationship between performance in the medical admissions interview and applicants' personality, ethical orientation and capacity for self-appraisal.

Participants were first-year students in the Griffith University graduate-entry medical program. They were asked to complete the following surveys of characteristics and attitudes: the two non-cognitive components of the Personal Qualities Assessment (PQA)[1, 2]—a personality inventory, NACE, and a survey of moral orientation, Mojac—and the Self-Appraisal Inventory designed to measure such attributes as insight, personal resilience and ability to self-evaluate, soon after the beginning of the 2007 academic year.

This presentation will report the results of the study. Discussion will centre on the characteristics and

attitudes of students selected into the program and the correlation between their performance at interview in each of the six qualities identified as being important for medical practice, and the particular personality traits and attitudes assessed by the PQA.

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H2—Linking 2

A multidisciplinary postgraduate educational program in international health and development for health professionals

Anthony Radford, Intermed SA, **Sneha Kirubakaran,** Flinders University

This paper describes the 'International Health and Development' course run by Intermed SA for health professionals headed to work in communities of the less-resourced areas of the world. It is a 3-week full-time course with an optional 4th week conducted in Adelaide each January. There is also an optional 2–3 week overseas practicum later in the year. Various modifications of the course have also been conducted in the USA, Brazil and Taiwan.

The program evolved as a result of a perceived need from numerous international health consultancies of the primary author. He observed that many health professionals had little orientation nor required skills in the provision of clinical and public health care for rural, urban and refugee communities in the less-developed world. This often resulted in significant personal and professional stress and inadequate levels of care.

Over 400 participants from every Australian state and territory as well as several other countries have attended the 'Summer School'. A feature of the course is the extraordinary range of previous professional backgrounds of the participants. These have included final year health professional students, senior clinicians undertaking a life-change and health providers returning from overseas seeking an appropriate continuing educational program.

The course is based on a number of educational objectives and provided through a variety of learning experiences such as group problem-solving, practical skills workshops, seminar tutorials and lectures.

The course addresses the three main themes of this Conference:

- it Links health professionals from different disciplines through varying levels of qualifications and it Links more-resourced environments with less-resourced situations
- it meets the needs of the unique cohort of Learners
- it equips its participants to be Leaders in health, education and training.

This paper describes the development of the course over 2 decades, the demography of its participants, its objectives, streams, content, assessment and evaluation of its various components.

Interprofessional learning for primary care: experienced nurses and doctors working together

Sue Pullon, University of Otago

Interprofessional collaborative practice is a key component in the successful delivery of safe, effective and comprehensive health care in the community and is known to result in better patient health outcomes. Key health professional groups working in primary care include nurses, doctors, pharmacists, and physiotherapists. Members of all disciplines greatly benefit from learning together, not only to enhance their own clinical practice, but also to better appreciate their own, and each others' professional roles in the primary health care team.

The practice nurse role, and more recently the primary health care nurse role, in New Zealand has evolved in a quite different way to that in many Australian primary care settings, although has parallels with remote rural nurse roles with respect to autonomy of clinical practice and collaborative doctor-nurse relationships. This has important implications for the success or otherwise of interprofessional learning for already experienced health professionals, particularly primary care nurses and doctors.

A successful postgraduate interprofessional learning program, now in its eighth year, where doctors, nurses and pharmacists undertake postgraduate study together, is outlined. Program evaluation results will be included, indicating benefits of continuing education in supporting career development within primary care, improving job satisfaction and favourably affecting both recruitment and retention in the sector

However, despite considerable success for some students and some courses, interprofessional learning programs are few in number and face ongoing challenges in New Zealand. Current specifications for postgraduate learning that fulfil professional reaccreditation requirements heavily favour uni-disciplinary learning. Structural barriers exist that largely preclude funding being available for nurses and doctors and others in primary care to undertake interprofessional study, despite NZ's primary care strategy which explicitly identifies interdisciplinary learning and working as both necessary and highly desirable. The most important of these barriers will be identified and solutions discussed.

H3—Linking 3

A three-year review of first-year nursing students' perceptions and experiences while studying science

Hemant Mehta, Kathy Robinson, Sharon Hillege,
ACU National

Introduction

Nursing students face many challenges in their studies, a significant proportion either withdraw from their Bachelor of Nursing (BN) course or fail in assessments. The BN program has a significant science component. Previous studies have suggested that nursing students experienced difficulty with science content. This study investigated the perceptions, experiences and learning strategies of three cohorts of first year BN students enrolled in nursing science units.

Methodology

A triangulated methodology utilising a questionnaire (39 questions) and focus group discussions (seven to nine students) as research instruments formed the basis of this investigation. The questionnaire elicited information on students' demographic details; expectations, perceptions and experiences; satisfaction with the nursing course; and learning strategies. Demographic questions were designed to derive information relating to age, gender, completion of previous tertiary studies and nationality. Questions requiring free text responses requested information regarding to students' expectations, experiences and the hardest part of transition to university learning. All first year BN students were invited to complete a questionnaire and participate in focus groups. Analyses of the quantitative data and qualitative data were assisted by using SPSS and NVivo, respectively.

Results

Three sets of first year data (2005–2007) revealed the following trends. The survey population consisted of approximately 85% females and 15% males; the students' age groups were: under 20 (16–23%), 20–30 (56–65%) and over 30 (19–22%). About 25% of students were Australian born, and up to 40% reported that their first language was English. The level of science education reached prior to commencing the BN course was: year 10 (25–30%), year 12 (50–60%) and tertiary (12–23%); and 40–46% had not studied science in the previous five or more years. Students' perception of nursing education was that there was much variation in teaching style and that science was a complex subject. Some students (49–58%) reported that they had difficulty learning science and struggled with medical terminology. A number of (29–33%) international students (from more than 40 languages background) also reported problems with English language. Most students reported that they realised the importance of science and continued to value science by attempting to develop effective study techniques.

Discussion

A common perception of first year nursing students was that there was a lot of information in the science units but little time to learn it. This may be related to their poor background in science education. International students had language difficulties, preferred the use of simple English in both, teaching and assessments, and appreciated the value of science in nursing. Students developed effective learning strategies such as asking more questions, group effort, reading textbooks and all course material, making supplementary notes and summarising notes, attempting past exam questions, and using the internet to search information.

Despite the complexity of science and individual learning difficulties, the majority of students believe that 'nursing practice cannot survive without scientific knowledge and skills'. While it is inappropriate for students to request content reduction, academics may benefit from increased awareness of students' perceived problems.

Adding assessment scores—what are the impacts of our choices?

Ian Wilson, University of Western Sydney

There is a longstanding belief that adding the scores of different assessments to produce a composite score will result in the ability to make a logical decision about the progression of students. This presentation will explore this in some detail.

The format will consist of a brief introductory presentation, followed by a discussion of what is already in use. Using some generated data the impact of different methods of adding scores will be examined from the point of view of students 'failing'. The data will demonstrate that depending on the method chosen the failure rate can range from 5% of students to 36%. The impact of standardisation of scores and the use of standard error of measurement will be demonstrated.

Subsequently a discussion will lead to some recommendations about the process that could be used. The take home message will be that the choice of system for adding scores has a major impact and we need to be very clear about why we are doing what we are doing.

H4—Learners 1

Addressing obstacles to success: what science do midwives and nurses really need?

Gudrun Dannenfeldt, Jane Stewart, Margaret Duffy, Kevin Stewart, Jackie McHaffie, Kelly Gibson van Marrewijk, Rose Hipkins, Jane Gilbert, Wintec

Research questions

Research questions were based on the assumption that science is a potential barrier to overall success for midwifery and nursing students.

- Phase 1—What aspects of science do newly graduated midwives and nurses really need to know?
- Phase 2—How can science be taught more effectively to enable students to make more meaningful theory/practice links?

Introduction and insights from the literature

The overall aim of our research project is to remove 'the problem' of science for students in the nursing and midwifery programs. Students reported science as difficult and time-consuming, and their achievement results reflected this. Science was seen as a barrier to overall course success (Gibson et al, 2005). Other research (Zepke, et al, 2006; Otrel-Cass et al, 2006) has focused on problems of retention and completion in the tertiary sector, claiming the student or the tertiary context as the problem. Our research rests on a different proposition, arguing the content or curriculum is at the root of 'the problem'.

We want to make the links between science and practice explicit, so that students could see the relevance of their learning, make links to prior experience and link the science to their chosen careers. We asked ourselves: What science do nurses really need? How can science be taught more effectively to help students make more meaningful theory/practice links?

Research design

(applies to nursing students only at this stage)

- Phase 1—Narrative approach: Focus groups with new graduates and educators provided rich stories. These were analysed and provided meta themes.
- Phase 2—Implementing teaching strategies: Stories and visuals were introduced to make the links more explicit. There was content reduction and students were asked to document any outstanding questions. Comparisons between the implementation of lectures, laboratories and tutorials in 2006 and 2007 were made in peer review sessions.

Although it will be difficult to quantify the impact, student evaluation will be sought and test results will be looked at.

Limitations of the research

The initial stories related mainly to pathophysiology which is only covered in the second year of study.

Changes in assessments will have to be done to include stories.

Conclusion

The implementation will be continued in the first year nursing course in 2007 and will also be translated into the first year of the midwifery program.

The literature which supports the research draws from both science and nursing education. It explores practice-to-theory and theory-to-practice links,

highlighting the largely tacit nature of these links (Chin et al, 2004).

For nursing and midwifery to remain a profession with a theoretical body of knowledge and practical skill foundation, radical changes will have to be made to the curriculum. This will require institutional support and staff commitment.

Acknowledgments

- Wintec research team members: Dr Kevin Stewart, Jackie McHaffie, Kelly Gibson-van Marrewijk
- NZCER research partners: Dr Rosemary Hipkins, Dr Jane Gilbert
- Funding: Research + Learning Research Initiative

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How medical students define success: an educator's guide to the current generation

Misty Curry, Alison Jones, University of Auckland

Introduction

Professional socialisation is the process by which individuals acquire the values, attitudes, skills and knowledge of the professional group of which they are becoming a part. Appropriate professional socialisation of health professional students is seen as a major factor in ensuring a high quality of patient care.

The process by which junior health professionals become socialised to their profession has been addressed at length in the literature. Early theories on the process of professional socialisation envisioned the process as the passage of values and attitudes from teacher and superior to the learner—the 'filling of empty vessels notion of socialisation'. More recent literature has asserted that environment and the values and motivations of the learner are intrinsic to the process of professional socialisation. Those who have applied theories on professional socialisation to the health professions have recognised the role that the values, attitudes and motivations of the learner in the process of professional socialisation.

It is widely acknowledged that professional socialisation is an important component in the explicit and tacit education of medical students. If we accept that it is among the roles of the medical educator to facilitate the professional socialisation of their students, then it is conceivable that an understanding of the values, attitudes and motivations of those students will be of assistance in that process. This assertion, based on current theories of professional socialisation, suggests that the experiences and pre-existent attitudes and values of students are an important influence on their professional socialisation; a belief which has been borne out in observations of health professional trainees. If educators are aware of these influencing factors it will enable them to become more 'learner sensitive', maximising student learning and allowing them to begin bridging the gap between the learner's perception of professionalism and their own.

Methods

The Delphi method will be the primary means of data collection in this study. The decision to utilise this method is based on the recognition that medical students are the sole experts in their own understanding of success, and that this method allows for anonymity and prevents social interactive behaviour which may limit opinion forming.

An initial focus group of University of Auckland School of Medicine students was conducted to identify points for inclusion in the first round survey. This survey was then distributed to medical students across all years of the University of Auckland medical program. Panel participants were asked to agree or disagree on a variety of factors which may be seen as contributing to life success, ranking those which they consider most important. The surveys have been analysed and a second round survey prepared. The process will continue until a consensus has been reached amongst the experts.

Results

Responses from the first round of the survey show significant concordance across all years of medical

students as to what constitutes 'success' for a medical student or doctor, both professionally and personally. Full results from this study will be available at the 2007 ANZAME conference.

H5—Learners 2

A framework for evaluating a new Master of Pharmacy coursework in training Australian pharmacists

G David Lin, Pharmacy, School of Health Sciences, **Coralie McComack**, Centre for the Enhancement of Learning, Teaching and Scholarships, **Gabrielle Cooper**, Pharmacy, School of Health Sciences, University of Canberra

Evaluating or reviewing a course or a curriculum is a common practice within universities. For some courses it is a regular part of the accreditation cycle undertaken by external agencies. For example a professional course (like Pharmacy) must be accredited by the New Zealand and Australian Pharmacy Schools Accreditation Committee (NAPSAC). However, studies examining and integrating the evaluation processes of internal university review and external professional accreditation are rare.

In response to the shortage of pharmacists in Australia, and the desire of graduates in non-pharmacy fields to become a pharmacist, several Australian universities (including the University of Canberra) have recently established two-year graduate-entry Master of Pharmacy courses. Three years on from the establishment of the University of Canberra course in 2004, and with the first cohort of students having entered professional practice, it is timely to develop a framework to evaluate the new course and to integrate that framework with the professional accreditation process about to be undertaken.

A three-stage evaluation process has been developed.

1. Conceptualisation of a CIPP-based (context, input, process and product outcome) evaluation framework

2. Application of this framework to the University of Canberra Master of Pharmacy course

3. Extension of the application to similar Pharmacy courses at other Australian universities to enhance quality assurance and to ensure continual improvement of pharmacy professional training in Australia.

The first stage of this process has been completed. Following a description of the key elements of the University of Canberra course evaluation framework, interactive discussion will be facilitated to:

Share experiences of course evaluation among the diversity of health professionals represented by session participants

Draw from this discussion effective and sustainable course evaluation practices.

Enabled observation: enhancing interdisciplinary health students' empathic understanding using the visual arts

Jo Gibson, **Rebecca Vanderheide**, University of Canberra, **Pamela Clelland Gray**, The National Portrait Gallery of Australia

'The way we see things is affected by what we know or what we believe.' (John Berger, 1972)

This Personally Arranged Learning Session seeks to engage participants in a conversation that is based on the premise that the humanities and, visual art more particularly, provide a text or language to use in the exploration of cultural differences and, importantly similarities, with students in an interprofessional health care context to enable individuals to work and develop more effectively in teams.

Shifting the focus from science as the foundational way of knowing of health care professionals, to art, which is an aesthetic form of knowing, arguably allows the facilitators of health care student learning to support the students to shift focus. This facilitated shift may then enable students to respond to concepts of health care professional 'cultural identity' such as values, beliefs, attitudes, customs and behaviours (Hall, 2005) at an intrapersonal level rather than through an acculturated or socialised professional lens.

Key questions for consideration during this conversation:

- Can art be used to enable health care students to reflect on what is different and what is shared in professional health care cultures?

- Does creating a unique space outside the expected clinical health care learning

environment stimulate students to reflect on different ways of seeing?

- How does a field trip to an art museum facilitate aesthetic knowing in view of the dominant and privileged scientific paradigm in contemporary health care?

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Biographies of presenters

Rebecca Vanderheide is a Lecturer and PhD candidate in the field of inter-professional learning researching interdisciplinary health care student and practitioner communication.

Jo Gibson is also a Lecturer in Nursing at the University of Canberra. Jo enjoys engaging with innovation in teaching and learning, including the use of the humanities to support the learning of health care practitioners.

Pamela Clelland Gray is Manager, Education and Public Programs at the National Portrait Gallery, Canberra, Pamela has, since the foundation of the NPG in 1994 played a significant role in establishing that institution's public and education program. She is currently undertaking doctoral research at the University of Melbourne on the integrity of aesthetic education in the practice of the public art gallery.

H6—Learners 3

A new model to look at constructive feedback

Joy R Rudland, Faculty of Medicine, University of Otago, New Zealand, **Andy Wearn**, Faculty of Medicine, University of Auckland, New Zealand, **Pam Nicol**, School of Paediatrics and Child Health, University of Western Australia, **Terry Tunny**, Faculty of Biological and Chemical Sciences, University of Queensland, **Tim Wilkinson**, Christchurch School of Medicine, University of Otago, New Zealand, **Cathy Owen**, Medical Education Unit, Australian National University, **Maree O'Keefe**, Faculty of Health Sciences, University of Adelaide

Feedback is a crucial aspect of the learning cycle. In 2005 the Clinical Editor of the BMJ offered a challenge to debate the issue of constructive feedback (Walsh 2005). Walsh made reference to Pendleton's rules and questioned his approach to constructive feedback as not being sufficiently learner driven.

Although the model proposed by Silverman in 1996 (Silverman JD, Kurtz SM and Draper J 1996) describes an agenda led outcome based analysis (this approach suggested that you find out the learners' agenda and the outcomes they wish to achieve and direct feedback accordingly) it was felt that a new holistic look at constructive feedback may be required.

At ANZAME 2006 a PeArL explored some of these models of constructive feedback. Resulting correspondence by some attendees at that PeArL has developed a tentative holistic model of feedback.

The model looks at the attributes of the receiver (before and after feedback), the attributes of the giver of feedback, the context of feedback and the quality of the feedback given. The model places the learner/or receiver of feedback as a central focus especially before feedback is given. The implications of this model will be explored.

This small group session will present the deliberations of this group both as an up-date of progress and also to receive valuable constructive feedback.

Biography of presenting author

Joy Rudland is the Director of Educational Support and Development in the Faculty of Medicine at the University of Otago.

Computer-based medical education—how to plan, design and build your own resources and what is the evidence for using it?

Sascha Saharov, ANU Medical School

Objective

To investigate the effect on the performance of two important clinical skills by 1st year medical students when computer-based teaching is added to traditional teaching methods.

Methods

Two computer programs were developed to teach both the hand and vital signs examination to 1st year medical students. Each student was randomly allocated to do one of the two programs 2 weeks before their end-of-semester objective structured clinical examination (OSCE). All participants were asked to complete an online survey about the

program and their examination results were used to analyse their performance of both skills in the OSCE.

Results

A significant difference in pass rates in the OSCE was shown between the experimental and control groups for the two skills (p=0.0364). The number needed to treat (NNT) with the computer-based training to prevent a student failing an OSCE station for one of the clinical skills is 17.0. The survey showed that students support the new teaching method and believe it would assist their preparation and actual performance in the OSCE. There were no significant differences in higher levels of performance between the control and study groups.

Conclusions

Computer-based teaching when added to traditional teaching methods of clinical skills will result in improved learning outcomes and skills acquisition of the core competencies.

H7—Learners 4

Usage patterns of learners accessing online lecture materials

Pippa Craig, Medical Schools Outcome Database, Medical Deans Australia and New Zealand, **Helen Wozniak**, CIPHER, Faculty of Medicine, **Daniel Burn**, IT Unit, Faculty of Medicine, **Sarah Hyde**, CIPHER, Faculty of Medicine, University of Sydney

Students are increasingly demanding more control over their learning environments with the advent of new technology and electronic media. Alternatives such as video streaming of lecture material constitutes one method of meeting these learners' needs which is gaining considerable uptake across the higher education sector, not just in medicine. With video streaming, students are able to access lectures 'on demand'. This paper reports on our analyses of student usage of these materials and discusses its implications for student learning.

In response to growing student numbers, timetabling and physical space constraints, the University of Sydney Medical Program (USydMP) started recording and delivering lecturing materials online in multiple formats from the beginning of 2005 for year 1 and year 2 students. A semi-automated method of creating the video materials is used. The lecture is captured on a digital camera by a human operator, and the resulting DV file is transferred to a processing server which automatically creates an audio file (MP3), high- and low-quality video files, as well as a range of files that when combined produce an integrated media file (Rich Media file) which synchronises the various media. In this way most of the output formats are generated automatically as a side product of the manual preparation of the Rich Media. Having a human operator present during the initial lecture presentation results in a higher quality of filming, relative to a fully automated capture system. All the files are delivered to the students through the content management system for the USydMP.

A preliminary evaluation survey at the conclusion of 2005 indicated differing viewpoints from students and staff, many of which align with what has been reported in the literature. Students commented on the value of such materials for revision, while staff expressed concern regarding attendance patterns at face to face lectures. Much of the research conducted to date, including this survey, relies on questionnaires gleaned from a small sample of students in a cohort.

The research to be presented will draw on our analysis of tracking actual usage patterns by students and staff during 2005 and 2006 by accessing information from the web server logs. Combined with the survey data, this will enable us to consider a range of issues related to the provision of web based lecture materials to students. Questions we will seek to discuss in this presentation are as follows:

- Who accesses the materials and when?
- What types of formats are accessed the most?
- What patterns of usage emerge from the data?
- What is the cost benefit analysis of this service?
- How can this analysis and survey data assist us to meet the changing needs of our learners?

Developing assessment of pharmacists: combining components

Mike Tweed, University of Otago, **Owain George**, **Sandy Bhawan**, **Mary-Anne O'Rourke**, Pharmacy Council of New Zealand

Background

The Pharmacy Council of New Zealand undertake summative assessment of intern pharmacists prior to their registration, using a variety of assessment methods including a modified OSCE. Although experts review the content and context, the scoring

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and aggregation has been highlighted for review. The current marking includes a checklist of evidence items and minimum outcome items (including safety of treatment), which are marked dichotomously as correct or not. The assessor uses the evidence items to inform the decision on process (marked as unacceptable, marginal or acceptable), whilst the minimum outcome items to inform decisions on outcome grade (marked as acceptable or not). The overall result is equal to the outcome grade, unless process or communication is unacceptable; in which case overall performance is also marked unacceptable. A new method of marking and aggregation was trialled during the running of a regular OSCE.

Methods

The new mark sheets used the same checklist content (evidence and minimum outcome items). The marking options were changed to: not done; done below standard; or done at/above standard. The safety item was changed to: not done; unsafe; or safe. Overall acceptability outcome was kept. A new 7-point scale, anchored at 3.5 as the minimum standard, was added. This new process was run in parallel to the current system on 2 stations. Using the 7-point scale, the borderline regression method was used to produce a minimum standard checklist score. Scores above the standard were compared with the acceptability outcome. Ordinal and linear regression was used to analyse which of the checklist or safety items contributed to the acceptability outcome or the scale.

Results

For both stations the correlation between the borderline regression scale and the checklist score was acceptable ($r=0.6$, $p<0.01$). For the first station, 24 of the candidates scored above standard and acceptable, 8 below standard and unacceptable. 4 were above standard but unacceptable, 3 below standard but acceptable. For the second station 24 of the candidates scored above standard and acceptable, 4 below standard and unacceptable, 3 were above standard but unacceptable, 5 below standard but acceptable. The acceptability outcome was predicted by 4 checklist items and the safety item for the first station and 2 checklist items and the safety item for the second. The scale score was predicted by 2 checklist items and the safety item for the first station and 2 checklist items and the safety item for the second.

Discussion

The safety item response was an important factor for the acceptability outcome and regression scale. Some candidates still got the number of marks on the checklist to be above the standard but had an unsafe or unacceptable performance. This has two explanations. The results are measuring different attributes and therefore need to be considered separately or they are measuring the same attributes, and differences are due to measurement error. If the safety item is considered separately to the minimum standard on the checklist then less candidates are likely to pass and the evidence for the decisions may be less robust.

H8—Leaders 1

A decade of rurally educated medical students: why are they where they are?

Pamela Stagg, Jennene Greenhill, Paul Worley,
Flinders University Rural Clinical School

Objectives

To determine the critical factors that has influenced the career pathways of graduating medical students of the internationally recognised Parallel Rural Community Curriculum since its inception in 1997.

Method

Results of a study of the 100 graduates of the Parallel Rural Community Curriculum (PRCC) will be presented. The aim of the study is to improve curriculum design and medical education policy development through identification of the factors that have influenced their career pathways since graduation.

Setting

The Australian Government has invested heavily in a national strategy to address the rural doctor workforce shortage in the past decade. As part of this strategy the Parallel Rural Community Curriculum was established as a pilot program in 1997 in the Riverland region of South Australia in collaboration with Flinders University and the private medical practices and health services of the Riverland.

Students studying in the PRCC spend their entire third year based in rural general practice as compared to the majority of students who study in the tertiary teaching hospitals in Adelaide. The students in the tertiary hospital setting study Surgery, Medicine, Paediatrics, Women's Health, Psychiatry and General Practice in separate sequential blocks. Students in the Parallel Rural Community Curriculum study these disciplines in an integrated fashion throughout the whole year as their learning is based around the patients they see in

their consulting sessions at the medical practice. As one student explained, 'Our curriculum is determined by whatever patient walks through the door. By the end of the year we have covered the whole course many times over'. All students sit the same exams at the end of the year.

The PRCC is a leading community based medical education program in Australia and has demonstrated the feasibility, effectiveness, and sustainability of basing medical education in private community-based practice. There is a need to examine the workforce outcomes of this initiative.

This study of the graduates of the PRCC adds to this body of knowledge and links this educational initiative with workforce outcomes.

Main outcome measures

The main outcome measure of the study is the identification of the key elements that have influenced the career pathways PRCC graduates.

Conclusions

International literature has shown that rural origin students and students experiencing early and repeated rural exposure in undergraduate and postgraduate training are more likely to practise in a rural location.

The relative short history of the Australian intervention strategies has resulted in a lack of empirical evidence of their workforce outcomes over the past decade. This study will add to this body of knowledge.

Linking leaders to learners: the generation of an in-depth understanding of the inter-relationship of knowledge, competency and performance

Kwang Chien Yee, Royal Hobart Hospital, **Hussam Tayeb**, Royal Adelaide Hospital

Introduction/background

There has been a strong emphasis on competency assessments, at undergraduate, prevocational and vocational training levels in recent years. The National Curriculum for Prevocational Training has been developed based on the perceived importance of knowledge and competency assessments. This has led to the development of simulation trainings, which aim to deliver and assess knowledge and competency of future health care practitioners. This strategy is based on the assumption that knowledge will lead to competency, which will in turn lead to performance improvement during clinical practice.

There are some theoretical evidences to support the linear relationship of knowledge-competency-performance. In practice, however, the relationship might not be straightforward. In fact, the relationship of knowledge, competency and performance remains unclear in real life clinical practice.

Purpose/objectives

This presentation aims to explore the issues regarding knowledge, competency and performance through a qualitative study design, analysed through socio-cultural lens, using aseptic intravenous line insertion as a field site.

Issues for exploration/ideas for discussion

What is the relationship of knowledge, competency and performance?

What are the factors that affect the translation of knowledge to competency?

What are the factors that affect the translation of competency to performance?

Is competency testing a useful way of ensuring performance in clinical practice?

How could we link learners and leaders to improve clinical performances?

Research methods

We carried out direct observation sessions and individual semi-structure interviews of junior medical officers regarding knowledge, competency and performance of intravenous line insertion. JMOs were used as observers in order to reduce the Hawthorn effect. Field notes and interview transcripts were coded by open axial selective coding and analysed drawing on the principles of grounded theory.

Results/discussions

Our study suggests a reasonably direct relationship between knowledge and competency but a complex relationship between competency and performance. There are various factors that affect knowledge to competency translation, some are personal, others are environmental. Knowledge forms the foundation for competency to build on.

Importantly, there are various factors that affect the translation of knowledge and competency to performance. These include personal, cultural and environmental factors. The dynamic inter-relationship among these factors determines the clinical performance. More importantly, our results indicate that knowledge and competency only forms the foundation for performance improvement. Other

factors, especially cultural and environmental factors, are more important in affecting performance of medical practitioners than knowledge or competency.

This study allows us to generate significant insights into the possibility of linking learners to leaders for performance improvement. This presentation will allow dynamics interactions with attendants to redefine the inter-relationship of knowledge, competency and performance based on our study.

Conclusion

This presentation concludes by presenting a new theoretical framework to understand the complex interactions of various factors which affect the inter-relationship of knowledge, competency and performance. The role of medical education in performance improvement is discussed based on our model.

Posters

Shared problem-based learning with medical and dental students: a pilot study

Rola Ajjawi, **Sarah Hyde**, **Chris Roberts**, Centre for Innovation in Professional health Education and Research (CIPHER), Faculty of Medicine, University of Sydney

A pilot study was set-up to investigate the barriers and outcomes of shared problem-based learning (PBL) sessions with medical and dental students at the University of Sydney. The Graduate entry Medical and Dental Programs share the majority of their curricula content in the first and second years. Students from both professional cohorts attend lectures and laboratory sessions together. However, PBL sessions are conducted uni-professionally using the same cases. This study was designed to investigate the feasibility and outcomes of shared PBL sessions with Medicine and Dentistry at the University. Particular interest was in exploring shared PBLs as a way of reducing negative attitudes and marginalisation currently experienced by some of the dental students. Three shared PBL groups, each comprising four medical and four dental students, piloted this initiative during the last six week block of learning at the end of Year 1. After a 12 week vacation, students returned to Year 2 in the same shared groups for another 10 week block of learning. Students in the PBLs undertook the same curricula as their counterparts and were asked to explore learning goals for each case related to both professional groups. Mid-block feedback was sought via email and focus groups were conducted with students at the end of each block. PBL tutors for each group were also interviewed at the end of each Block. Observation of PBL sessions was also carried out. Two significant barriers were experienced in setting up the shared PBLs: logistics (including timetables, inadequate space, insufficient number of tutors) and culture (stereotyping of students, cynicism). All students reported enjoying the shared groups and did not find it detrimental to their learning. Medical and dental students reported greater social integration and dental students reported improved understanding of the basic clinical sciences and enjoyment of clinical stories from the medical clinical days. Many of the medical students reported a greater understanding of dental students' curriculum workload expectations and of dentists' professional role. An unexpected outcome of the trial was the approach to PBL adopted in the shared groups towards a mechanism focus. Recommendations for full-integration of year 1 and 2 of the Medical and Dental programs are made. The findings are also being used to inform the design of a larger scale implementation of this initiative.

Improving communication—a trial of two methods of electronic mailing to enhance dissemination of information to clinical teachers

Shirley Alexander, **Patrina Caldwell**, **Megan Phelps**, Discipline of Paediatrics and Child Health, University of Sydney, Children's Hospital at Westmead Clinical School.

Background

Electronic mail (email) has become a global form of communication, readily adopted by industry. Medical institutions and personnel have been slower to introduce this form of communication in the workplace. At the Children's Hospital at Westmead Clinical School, the majority of communication to senior clinical teachers regarding student clinical attachments was in the form of a written letter. There were concerns regarding perceived lack of communication from the clinical school, voiced by senior clinicians during focus group discussions on attitudes to teaching. To address these concerns we introduced two forms of email as a means of communication to determine if this enhanced dissemination of information.

Aims

To compare the effectiveness of individualised personal email and group email to enhance dissemination of information to clinical teachers in a teaching hospital setting.

Methods

This is a cluster randomised trial of 208 senior medical staff (clinical teachers) involved in teaching medical students at the Children's Hospital at Westmead. At the beginning of the student semester in March 2007, the clinical teachers were sent an email from the clinical school giving information with regards to details of medical students (names and dates of attachment) to be placed with that clinician's medical team during the semester. The clinical teachers were randomly assigned to receive this information either by group email or individualised personal email (via mail merge). Randomisation was computer-generated. Blinding for recipients was not possible. Prior to this email, the clinical teachers were requested to complete a questionnaire to determine demographics and their preferred mode of communication regarding information about medical student attachments. At the end of the semester, the clinical teachers were asked to complete a short questionnaire to recall if they had read the email regarding the medical student attachments.

Outcomes

Qualitative and quantitative data from returned questionnaires will be collated by the first author. The number of clinical teachers who read their email from the clinical school will be compared between groups. In addition preference of communication mode and degree of satisfaction will also be determined. Results are pending.

Approval

Approval for this study has been granted from the Service Improvement Unit at the Children's Hospital at Westmead.

The effectiveness of a computer-assisted learning module in assisting first-year medical students to understand the histology of epithelial and connective tissue cells

Alisha Azmir, medical student, **Gerard Corrigan**, Medical Education Unit, Medical School, Australian National University, **Jane Dahlstrom**, Associate Professor in Anatomical Pathology

Background

It has been shown that computer assisted learning (CAL) can:

- reduce the amount of laboratory time needed, while increasing the speed and frequency of histological images accessed
- increase study efficiency as well as enable students to concentrate on the learning principles associated with learning about histology specimens

Aims

This project sought to determine whether a computer based tutorial, in addition to students' formal learning, assisted understanding of the characteristics of epithelial and connective tissue cells. It was hoped this approach would be a useful adjunct to the small amount of time that was allocated in formal learning situations such as medical science practical sessions.

Method

The applicants targeted for the CAL modules were first year medical students from ANU, recruited on a voluntary basis. Two CAL modules were evaluated, one on epithelial tissue and one on connective tissue. The student learning objectives of the CAL modules were developed by a clinician-educator. Additionally, a pre and post-test, were included as a means of testing the students' knowledge prior to and after undertaking a CAL module.

The students were evenly and randomly allocated into three groups (as described below; N=80).

Group	1—Epithelial Tissue	2—Connective Tissue	3—Control
Stage	• Epithelial pre-test • Connective tissue pre-test		
	Students sat Epithelial Tissue CAL Module	*Students sat Connective Tissue CAL Module*	*No CAL Module provided for students*
	• Epithelial post-test • Connective tissue post-test		

Results and conclusion

The results of this project will be presented.

Biography of presenter

Alisha Azmir is currently a second year postgraduate medical student. Previous background in Information Technology (Bach. Information Technology, Co-operative Scholarship, University of Technology Sydney). Some experience with education through tutoring and voluntary teaching.

A feedback area was included to allow students to provide their opinion on how they thought the module assisted in their learning.

Linking health professionals' educational needs to targeted training activities: Allied Health Professional Enhancement Program, Queensland Health

Julie Burnett, Northern Area Health Service AHPEP Coordinator, Workforce Directorate, **Simone Baker**, Metropolitan AHPEP Coordinator, Royal Children's Hospital, **Karen Bell**, Southern Area Health Service AHPEP Coordinator, Cunningham Centre

The Allied Health Professional Enhancement Program (AHPEP) is a Queensland Health state-wide professional development coordination program that responds to the education and support needs of allied health professionals and allied health assistants practicing in provincial, rural and remote areas. The program also aims to, improve job satisfaction, and subsequent recruitment and retention allied health professionals and improve allied health service delivery by enhancing clinical skills, networking and confidence.

Allied health professionals across Queensland Health represent a disparate educational target group with training needs and expectations varying

considerably according to discipline, geographical, service delivery and individual factors. Linking this diverse group to appropriate education and professional development opportunities is a challenge requiring an approach to funding and organisation of professional development which reflects and accommodates this diversity. AHPEP provides multi-faceted professional development coordination with the capacity to link the specific needs of participants to a range of learning pathways and environments. Learning opportunities offered include opportunities for an individual placement within another health service or specialist unit of up to one week duration, a team visit, videoconferencing for clinical consultation or the hosting of a workshop on a particular clinical topic. Flexibility in delivery method allows training to be tailored to the needs of the learner or group of learners whilst being balanced against the staff development priorities and capabilities of the organisation.

The flexibility of AHPEP allows for a coordinated approach of linking the expectations and needs of the learner, the facilitator providing training and the organisational needs of Queensland Health. The participants of this program have significantly different skills, experience and learning needs. AHPEP has the capacity to link the specific needs of each participant to a range of learning pathways and environments. The flexibility of AHPEP provides participants with access to a diverse range of theoretical and/or practical learning experiences which influence their clinical practice and service delivery. Accessing training and professional development opportunities are not restricted by geographical service or professional boundaries. AHPEP provides the foundation for positive educational outcomes.

In 2005–06 financial year, AHPEP received two hundred and six applications and supported one hundred and seventeen professional development activities. Evaluations of the AHPEP placement by the participant, line manager and the host site indicated that the program continues to be successful in enhancing and validating current work practices, increasing confidence, improving clinical skills, increasing job satisfaction and enhancing clinical networks. The majority of participants and line managers reported positive changes made to service delivery in their workplace as a result of undertaking an AHPEP placement. Reported benefits from host sites' sponsoring a placement include increased understanding of rural and remote practice and improved networking. Over five hundred and twenty participants attended AHPEP workshops across the state with the majority of participants highly satisfied with the content, presentation and organisation of workshops.

Biography of presenter

Julie Burnett has been the Allied Health Project Coordinator with the Workforce Directorate, Northern Area Health Service, Queensland Health since July 2002. Julie has assisted with development and management of AHPEP state-wide since 2002. Julie's qualifications include Bachelor of Commerce (2002) and Graduate Certificate in Health Management (Qld Health) (2004).

Enhancing first-year medical students' learning skills via online modules through BRAIN (Beginner Research and Information Network)

Catherine Clarke, Lisa Cluett, Erica Yeh, Diana Jonas-Dwyer, Fiona Lake, University of Western Australia

Background

Personal and Professional Development (PPD) is one of four major themes in the Medical curriculum at the University of Western Australia (UWA). Within this theme one outcome is to 'apply the principles of life-long learning and continuing education'. First year students particularly need assistance with the transition from secondary to tertiary studies ([1] p.24). A review in 2004 found that some learning skills were provided through lectures at orientation and through semester but noted that PPD was not a formal first year unit and was variably attended and utilised. The review recommended that PPD use online rather than face to face teaching to provide more convenient access to both staff and students throughout the year.

Purpose

The purpose of the presentation is to showcase an innovation that assists first year medical students' to develop their learning skills.

An online interactive course was developed comprising of four interactive modules (1) essay writing, (2) using literature, (3) note taking and (4) exam strategies and replaced the previous PPD lectures in first year. Each module comprises learning outcomes, activities and content including audios (e.g. student talking about their experiences), hyperlinks and PDF documents. Each topic contains a pre-test for students to determine their current level of skill in each area before working through the topic. Post-tests for each module are made available to students after a number of weeks. The

modules were developed by a team that included staff from the Education Centre, the Library and the Study Smarter team from Student Services. The modules were delivered via WebCT and were made available to all first year students in the Faculty in Medicine, Dentistry, Podiatric Medicine and Health Science.

Evaluation

A focus group was held to gather feedback about the design and content of the modules from the students' perspective and will be used for quality improvement. Students liked the minimal amount of scrolling per screen but suggested the modules be arranged in a different order (note taking, using literature, essay writing and exam strategies) and that each module be time released, week one for note taking, week two for using literature and essay writing and the last week of semester for exam strategies. They also asked for the interactive elements to be made more obvious, e.g. drag and drop elements put on a separate page.

A pilot was conducted during first semester 2007. The orientation session for first year students included a demonstration of BRAIN and students were strongly encouraged to work through the modules within the first few weeks of semester, one lecture on learning referred to the modules when preparing the students for writing their first essay and individual lecturers referred their students to the modules as part of their assignment work. Preliminary data shows that 80% of the first year students have logged in three times. Further evaluation of the modules will determine whether there have been changes to student behaviours.

Discussion

The modules are not compulsory what strategies can be used to encourage students to do the pre-test, work through the modules and complete the post-test.

Biography of presenter

Diana Jonas-Dwyer is a Senior Lecturer, (Managed Learning Environment) at the Faculty of Medicine, Dentistry and Health Sciences at the University of Western Australia. Her main role is to advise and assist staff with appropriate information and communication technologies in their teaching. Her research interests are student learning and education and communication technologies.

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Developing a rural workforce through medical education: 'necessity is the mother of *innovation*'

Diann Eley, Louise Young, Peter Baker, David Wilkinson, University of Queensland School of Medicine

Background

Rural Clinical Schools (RCS) in Australia are a government initiative to help address the rural workforce shortage at the medical school level. The RCS at the University of Queensland (UQ) has embarked on a series of educational initiatives to foster rural recruitment. This presentation outlines these approaches and outcomes.

Description of program

The UQ RCS comprises five teaching sites in South West and Central Queensland. The program is underpinned by an eight week rural rotation for all third year MBBS students. Simultaneously, 25% of the Year 3 and Year 4 UQ cohort may opt to undertake their 3rd or 4th year studies at the RCS.

The dilemma

- All students are required to undertake the same learning objectives regardless of clinical location
- Both teaching and learning issues need to be addressed
- Shortage of clinician teachers
- Shortage of clinical teaching locations for student placements

The rationale

- Medical education that would influence rural recruitment
- Medical education that would give something back

The solution

Aspects of experiential, situated, service and self-directed learning along with interprofessional study are integrated to provide unique rural focused learning opportunities. These are listed below.

Rural medicine exposure for all Year 3 MBBS students. The Rural Medicine Rotation is designed to provide positive educational experiences through

POSTERS

experiential learning which are known to encourage rural career choices.

Extended rural placements in MBBS Years 3 and 4. Students can complete Year 3 and/or Year 4 clinical rotations in a RCS through a program of supported *self-directed learning* activities in a rural context.

Student learning opportunities. Several features of the RCS, such as a smaller number of students and a higher student to teacher ratio are also conducive to increased student learning opportunities.

- Rural focus projects—Students to undertake a project of benefit to patients, health professionals and the rural community illustrating a form of *service learning*.
- Interprofessional education—This exposes them to the collaborative nature of rural practice and gives them an appreciation of the team work required in rural medicine.
- Rural immersion experiences—Most undergraduate medical education is centred in large urban tertiary hospitals. The innovative Leichhardt Community Attachment Project was a pilot study that utilised *situated learning* and produced three rural interns.
- Information technology
  - **Clinical Discussion Board** involves *collaborative learning* by allowing students at all rural placement locations across Qld to discuss and share their rural experiences and clinical issues with each other. This also encourages *reflective learning practices* through peer-based interactions
  - **Personal Digital Assistant (PDA)** support the learner centred approach to medical education incorporating *self-directed learning* and providing clinical evidence at the point of learning

Outcomes

Compared to their urban counterparts, rural students see more patients, perform a greater number of procedures and achieve as well in exam results. Early indications suggest that the RCS program is attracting more Year 3 and 4 students to explore the rural pathway as an option to a future career.

Rural learning—impact on choice of future study/work location

Helen Malcolm, Rural Clinical School University of Tasmania

Objectives

To determine whether a rural rotation in year 3/4 of the University of Tasmania's medical course impacted on students' stated preference for doing the final years of their course at the Burnie Rural Clinical School and/or on their ultimate preferred working location.

Method

Questionnaires were filled in at the beginning and end of the rotation. Students marked on a Likert scale their intention to study at the Rural Clinical School and/or to work in a rural location. Other information was also collected which could impact on student preferences.

Results

Questionnaires from 17 students (100%) were available from both before and after the rotation. There was a small increase in the intention to both study and work in a rural area. Results differed between those with and without a scholarship and those with rural and urban backgrounds.

Discussion

Medical students at the University of Tasmania have a 2 week rural rotation from Hobart in year 3 or 4 of their course. Research has shown that having a rural background can have an impact on the decision to practise as a doctor in a rural area. This study has shown that a short rural rotation in the middle years of the medical course can also impact on the decision to study or work rurally, but that there are further differences between students with/without scholarships and from a rural or urban background. A larger, comparative study would need to be done to confirm these findings.

Implications

To increase a doctor's preference for working in rural areas, a mid course rural rotation may be beneficial. The extent of the impact depends on many factors including rural background and scholarships.

Assessing performance in simulation-based training—experience with video-analysis support software

Harry Owen, **Cyle Sprick**, Flinders University

Background

Simulation is now widely used to give health professional students and trainees opportunities to learn important life-saving clinical skills without putting patients at risk. In this setting learners can be allowed to make mistakes but to derive the most value from this experience requires appropriate feedback. Typically participants observed in a role and the teacher identifies events and behaviours that can be discussed later. It is a challenge to provide consistency when there are several teachers and many students. To help with this we have investigated video-analysis to track students' performance. Here we outline our experience with Studiocode (www.studiocodegroup.com), a version of a software package that has been used widely for video-analysis in sport and we present our initial experience of using it in a branch of health care education.

Methods

The paramedic degree program at Flinders University is based on a curriculum that includes knowledge, clinical skills and attitudes that have been identified as important for professional practice. The course includes a series of simulated patient encounters designed to challenge students to perform particular skills in context. Soft buttons were created in Studiocode to tag instances during the scenario where the skills being taught and assessed were used. Scenarios were either recorded directly on a laptop through Studiocode or digital video was imported from a camcorder for analysis.

Results

It was not difficult to learn the main features of Studiocode and to customise it. We found it was difficult for one person to run a scenario, observe students and code at the same time and our coding was undertaken 'off-line'. Tagging instances and events created a timeline that helped identify where students performed well and where they could improve their skill level. Secondly, the matrix function in Studiocode provided a useful graphical output to display overall performance in the scenario.

For example, paramedic students entered a scenario in which they needed to provide emergency treatment to a patient with a serious gunshot injury. Effective communication was vital for good outcome in this event and key aspects of time-critical communication in a dynamic environment were the main learning goals of this exercise. The video-analysis software facilitated measurement of communication with victim and colleagues under the following headings:

- specific/non-specific
- directed/undirected
- acknowledged/not acknowledged.

Implications

We believe Studiocode has given us a useful tool to analyse performance in simulation and provide feedback to participants. It did require more work by the supervisor of this training but it has improved confidence in the ability to provide useful feedback to students. Also, the labels ascribed to the soft buttons might help standardise analysis between observers and fixed values should facilitate assessment of students' learning over time. This is now being investigated.

Medical students' attitudes towards research and career in research

Serena JK Park, Department of Ophthalmology, University of Auckland, New Zealand, **Moon-Sun Choi**, Middlemore Hospital, New Zealand, **Charles NJ McGhee**, **Trevor Sherwin**, Department of Ophthalmology, University of Auckland, New Zealand

Purpose

To determine the attitudes towards research and career in research among medical students at a New Zealand medical school.

Method

A questionnaire was devised and distributed during compulsory lectures to all medical students enrolled at Auckland Medical School for the 2007 academic year.

Results

558 replies were received from 756 students enrolled for 2007 academic year; a response rate of 74%. 25% of students had participated in some form of research activity during medical school. Summer studentship was the most common type of research experience. The most common reasons for participating in research were to earn money (58%) and an interesting project being available (54%). Among the students with research experience, 39% agreed that participation in research increased their

interest in a career in academic medicine and research.

Although 68% of respondents were aware of the intercalated research degree option at Auckland Medical School, only 9% expressed interest in undertaking this option. Most common reasons for deciding against the intercalated degree option were lack of interest in research (46%), social reasons (29%), and financial reasons (27%). Students with research experience were more likely to have had decided against the degree following initial interest (17% versus 7% in non-research group, p=0.0015). Also, a greater proportion of students with research experience stated social reasons (37% versus 14% in non-research group, p<0.0001) and lack of support available (22% versus 8% in non-research group, p<0.0001) as the reasons for deciding against intercalated degree.

There was no widespread support from the students for having research training as a compulsory part of medical school curriculum (26.3% for versus 30.8% against compulsory research training). However, more students with research experience responded positively to compulsory research training at medical school (33.1% versus 24.2% in non-research group, p=0.0496)

With regards to long-term career plan, 34.6% of respondents planned to be involved in research throughout their medical career, and 22.2% were interested in pursuing higher degrees (MD or PhD) following graduation. More students with research experience were affirmative about being involved in research throughout their medical careers (57% versus 27% in non-research group, p<0.0001) and pursuing higher degrees following graduation (29% versus 20% in non-research group, p=0.0344). Opportunity for research was the least important (23.3% affirmative response) consideration when choosing a specialty, ranked well behind lifestyle (83.9% affirmative response) and earning potential. Only 0.5% of students chose academic medicine/research as the most preferred career choice.

Conclusions

Interest in research participation is high among medical students. Research participation increases students' interest in pursuing career in academic medicine and research. However, only a small proportion of students were interested in pursuing an intercalated degree. There is very little interest in pursuing a career in academic medicine and research.

Pocket resources for nursing students

Kerry Reid-Searl, **Trudy Dwyer**, **Lorna Moxham**, Central Queensland University

To understand the needs of undergraduate students when in the off campus clinical means taking the time to ask them what will make a difference to their day. This paper presents a project conducted by a group of nurse academics who, as a result of collaboration with students, developed some valuable resources that are now being utilised by universities across the nation. This paper will present the journey taken from the initial simple idea to the development of the resources. This paper is intended to inspire others to take on challenges and allow ideas that may sound simple to become real.

Formative evaluation of a Mini CEX implementation pilot: clinical competence assessment of third-year medical students in the University of Sydney Medical Program

Imogene Rothnie, **Helen Wozniak**, **Sarah Hyde**, **Chris Roberts**, **Peter Davy**, CIPHER, University of Sydney

Background

In recent years a number of innovative assessment strategies have been widely adopted to assess clinical and professional competence in the workplace environment. Such strategies include the use of the Mini Clinical Evaluation Exercise (Mini-Cex), Direct Observation of Procedural Skills, (D.O.P.S.) and the Mini – Peer Assessment Tool (Mini PAT or 360° Assessment. (A.B.I.M., 2007; Foundation Programme, NHS, UK) to name a few. This is long overdue with numerous studies showing that student's performance in the clinical setting often does not measure up to that achieved in simulated settings (Barnsley, L., 2004; Morton, J., 2006) and that traditional assessment of medical students' clinical competence via the long case is not sufficiently reliable to support high stakes assessment decisions (Noricni, 2002).

What often isn't reported is how such new assessments are embedded into curriculum. There are anecdotal reports of the failure to implement such innovations. Does the hype and excitement translate to actual practice in the busy clinical environment? What does it take to promote acceptance amongst our busy practitioners?

Development of the Mini-CEX at the University of Sydney Medical Program

In 2007, the Mini-CEX is being trialled as a method to enhance the long case as a measure of clinical competence in Stage 3 of the University of Sydney Medical Program, with a view to full scale implementation in 2008. A development team at the Centre for Innovation in Postgraduate Health Education and Research (CIPHER) developed the Mini-CEX instrument to be used in the Faculty wide pilot and created a package of training materials for assessors that included presentations, a training DVD of a Mini CEX encounter and Assessor–Student feedback session. Clinical Schools promoted Mini CEX training to their clinical teaching staff, and academics from CIPHER visited clinical schools to deliver training to volunteering Faculty. Training sessions promoted debate about performance standard expectations amongst Faculty, and it was hoped that a 'snowball' effect of uptake of the Mini CEX as a formative teaching tool in 2007 would occur in the clinical schools. Stage 3 students in the program were encouraged through various fora to use the Mini CEX as a formative assessment for learning.

Outline of presentation

This presentation will use formative evaluation data collected throughout assessor training and after implementation to outline our experiences and lessons learnt from our initial implementation of the Mini-CEX in the clinical schools serving the USydMP. It will encourage further collaboration and discussion amongst ANZAME conference participants about the educational and contextual issues that confront medical educators in the implementation of innovative assessment practices.

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Mapping outcomes—aiding vertical integration

Joy R Rudland, **Paul Pope**, Faculty of Medicine, University of Otago, New Zealand

Seamless Medical Education is a continual aspiration of Medical Educators. Concern has been expressed about the articulation of learning between: undergraduate education, the early years of practice (prevocational training), specialist training and continued medical education. Problems can also exist between years or blocks of learning within one of these areas, for example the undergraduate curriculum. These discrete silo's (self contained storage structures) of learning may result in poor vertical and horizontal integration and hinder learning.

Whilst much of this problem is about poor communication there is also an issue of how the information is articulated in order to share the common language of learning, both the statement and level of learning required.

This small group presentation will demonstrate a simple model of mapping outcomes, primarily at the undergraduate level but linking with learning after this point. The Australian Framework for Junior Doctors will be used as an example the longitudinal interlinking between undergraduate education and prevocational training and beyond.

The presentation will highlight the challenges and limitations of mapping but offer a model that may assist in articulating learning and ultimately allow greater communication between the current silo's of education.

Biography of presenter

Joy Rudland is the Director of Educational Support and Development in the Faculty of Medicine at the University of Otago.

Efficiency of clinical training at the Northern Territory Clinical School: the relationship between placement length and rate of return for internship in the Northern Territory

Anna Smedts, **Michael Lowe**, NT Clinical School

Numerous rural and regional clinical training programs have been developed recently with the ultimate goal of recruiting interns and junior doctors to the local workforce. The Northern Territory Clinical School (NTCS) places Flinders University

POSTERS

students for both short term and long term placements in the NT in their 3rd and 4th years (the final two years of their course). The program's success is evident in the high rate of return of these students to NT hospitals for their internship year.

We examined how the length of placement was related to the number of students who returned to intern at the Royal Darwin Hospital. Our study considered two groups of graduates from 1999–2006: 'NTCS students (n=123),' who spent their entire 3rd year in the NT (and, typically, some of their 4th year), and 'non-NTCS students (n=542),' those from another university or Flinders campus who chose to undertake elective and selective terms (4th year only) in the NT.

Our analysis showed that, overall, one student returned to the NT for every 127 weeks of placement that we provided. The highest rate of return (60%) was among NTCS students who spent over a third of their final year in the NT. The most efficient training models (i.e., lowest weeks:return ratio) included NTCS and non-NTCS students who spent significant time (12–24 weeks) in the NT during 4th year (91 and 66 weeks training per returning student, respectively). In contrast, non-NTCS students who spent a short time in the NT in their 4th year, and NTCS students who spent most of their 4th year away from the NT were less likely to return for an internship.

Short-term elective students from out of the NTCS appear to offer the least return for the number of weeks of placement provided. We are attempting to increase the number of longer-term placements in 4th year to try and offset this effect.

Use of standardised patients for teaching physical examination

Anna Vnuk, Maria Perez-Marrero, Jane Tillett, John Agzarian, Flinders University

Introduction

At Flinders, we have used standardised patients (SP) for teaching and assessment in all years of the Graduate Entry Medical Program. However, physical examination has mainly been taught with students learning on each other or on patients in the wards. This poster describes a basic evaluation of our SP program for physical examination teaching.

Description

Systems based physical examination teaching starts in semester 2 of year 1. Each group of eight students has a 1.5 hour tutorial each week. It was traditionally taught by physician trainees but after multiple and sustained complaints by students, the Dean agreed to fund paid tutors for the first time in 2005. Our tutors were mostly GPs and we ran special training in physical examination for them. In addition, we gave all students a series of checklists of the systems based examinations. We simplified the teaching for our tutors by asking them to focus on teaching that could be done in the skills lab, which meant that students would now solely be learning on each other. While there are many advantages of peer physical examination, we decided to augment this physical examination teaching with SPs for formative assessment tasks.

Rationale behind the introduction:

- to structure increased amount of observed physical examination
- to include more structured feedback into clinical skills teaching
- to detect and remediate students with difficulties earlier than at the end of year exam.
- as students are more formal with SPs than with each other, SPs were used to teach students patient etiquette without taking the students to the ward and examining inpatients.
- to consolidate the physical examination technique by learning on and assessing 'normal' subjects.
- to use the formative assessment task as a 'hook' to encourage the students to reach a higher standard of physical examination earlier (rather than later—just before the exams).

The structure of the teaching sessions will be discussed but, in summary, each student was observed by the tutor performing a systems based physical examination on the SP, marked according to the checklist and given feedback on their performance.

Our SPs were recruited from those who were currently on our books for other teaching and assessment. However, after the first year, we started to give about 80% of our work to one SP with unexpected benefits:

- our SP became very knowledgeable
- he was able to standardise the teaching of difficult manoeuvres between groups
- he was able to 'audit' all the groups—report back any difficulties or problems

All of these had positive benefits for our teaching.

Evaluation

Our student outcomes cannot be validly compared with other years who did not use SP's for teaching and assessment but results at the end of year summative assessment were more positive than ever before and student satisfaction was high. This poster will discuss in detail the students' opinions of the SP program and any suggestions for improvement.

Summary

This method has proved to be very successful for us and our students.

Making the link between learning clinical skills in the safe controlled skills centre to the complex ward-based environment

Helen Wozniak, CIPHER, Faculty of Medicine, University of Sydney, **Evelyn Dalton**, Westmead Clinical School, Faculty of Medicine, University of Sydney, **Sue Ralston**, Concord Clinical School, Faculty of Medicine, University of Sydney

This presentation will report on the results of a project studying the factors that influence performance of clinical skills by year 3 medical students as they move to a hospital ward environment.

Currently graduate entry University of Sydney medical students are taught clinical skills in the regulated learning environment of the clinical skills centre. Experiences beyond that environment vary considerably in supervision, feedback and opportunities to practice in real life situations. Researchers note the need to study the processes involved in skills learning (Bradley & Bligh, 2005) especially how learners interact with the learning environment (Greveson & Spencer, 2005). The measurement of blood pressure is one clinical skill that has been shown to be performed poorly by doctors at varying levels of training (Bhalla, Singh, D'Cruz, Lehl, & Sachdev, 2005). There is little evidence of any correlation between self perceived confidence and actual skill mastery of final year medical students and new interns (Barnsley et al., 2004, Morton et al., 2006).

This research adopts a responsive approach by collecting both quantitative and qualitative data to provide a richer picture of clinical skills learning. In the first stage the research will use blood pressure measurement as a trigger to examine the relationship between confidence, experience and performance of the clinical skill. Data will be collected through a questionnaire and observed performance of the procedural skill. In the second stage students will reflect on this experience in focus groups at the beginning and end of their clinical rotations to highlight factors that affected their mastery of clinical skills.

Research outcomes to date have shown that student's confidence about measuring blood pressure does not correlate with their actual performance of this skill of in the ward environment. Qualitative analyses of the focus group themes have indicated a number of factors that influence transfer of learning from the safe clinical skills centre environment to the hospital ward. This presentation will outline the themes identified in the focus groups and also the influence of practice and supervision on student performance. We will seek to identify strategies that could assist in linking prior learning with the complex hospital ward environment.

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New learners and new leaders: we need the Generation Y link!

Kwang Chien Yee, University of Tasmania and Royal Hobart Hospital, **Erin Mills**, Royal Hobart Hospital, **Caroline Airey**, Royal Brisbane Hospital

Introduction/background

It is all over the news! Generation Yers have infiltrated most industries in the past few years. Naturally, generation Y students and workers have already entered the health care professional education and workforce over the last few years. Importantly, as the critical mass of generation Y

students and junior trainees is increasing, we need to take the educational needs of this group of young learners seriously. According to the literature regarding generation Y in other industries, this group of young learners have very different learning styles and expectations regarding learning environments. Some of these differences include their familiarity with technology, their on-demand learning style, the rapid change of pace of clinical practice, the life-experience expectation as well as their different concept of the relationship between educators and learners. While we design and discuss medical education of the future, it is imperative that we take into account these changing socio-cultural factors in order to develop this group of young learners into future leaders in the field of medical education. The presenters of this PeArLS have been working together with generation Y students and doctors to generate in-depth understanding of generation Y within the health care sector in order to develop solutions for generation Y.

Purpose/objectives

This aim of this session is to develop with health care educationalists some strategies for future development of medical education for generation Y. The session will firstly aim to introduce the concept of generation Y. We will then draw on the knowledge and wisdoms of the participants to debate the perceived and real differences of generation Y learners. It aims to discuss the issues specific to generation Y, as well as potential solutions. The session finally aims to develop some frameworks and ideas about potential strategies to develop generation Y learners into leaders, through sharing of our experiences and observations.

Discussion or issues for exploration/ideas for discussion

The following issues and questions can be explored and discussed, dependent on participants' interest.

- What are the important characteristics of generation Y that affect medical education and medical practices in the future?
- Are generation Y students and trainees different from other learners?
- What do medical educators understand about the learning styles of generation Y learners?
- What are the best ways to deliver medical education to generation Y?
- How could we best utilise technology to meet the education needs of generation Y?
- What is the role of simulation in generation Y education?
- What are the barriers to understand and deliver the education for generation Y health care professionals?
- How do educators provide generation Y with their 'live-experience'?
- What is the relationship between leaders and learners in generation Y's world?
- Could we encourage and empower generation Y learners to become learners in the field of medical education? What are the barriers and activators?
- What are the characteristics of generation Y which might affect their life-long learning during their clinical practice?

Understanding the link for learners during their clinical attachments: an exploratory study

Kwang Chien Yee, University of Tasmania

Background/introduction

Clinical attachments to teaching hospitals have been an important element of medical training for students. Most clinical teams consist of consultants, registrars and interns. The clinical team carry out many activities and it is widely assumed that students learn through 'osmosis' in an apprenticeship model. There is, however, a lack of understanding of the learning process of final year students attached to medical units.

Purposes/objectives

This session aims to firstly present the results of our study. It then aims to engage attendants in a debate regarding the following issues:

- How many hours should medical students spend with consultants, registrars and interns?
- From whom do medical students learn the most from during their clinical attachments? And how?
- What activities do medical students learn the most from?
- How do students learn during their clinical attachments and how could that learning be facilitated?

- How could clinical rotations be improved from students' perspective and are they achievable?

Method and results

A mixed qualitative and quantitative research methodology was utilised to explore the learning process of final year medical students. The survey was distributed to all students at the end of their medicine/surgery rotation. The survey contained quantitative questionnaires with visual analogue scales and written open-ended interview questions. The results were analysed using thematic analysis.

We found that medical students spent an average per week of 5.2 hours with consultants, 21.8 hours with registrars and 27.8 hours with interns. They learnt the most from registrars and learnt the least from consultants during their clinical attachments. The most useful clinical activity that medical students learnt from was the admission of patients. The results (scale of 1 to 5, 1 least useful, 5 most useful) of the assistance of the clinical team given to the students to assist with their learning are demonstrated below:

	Consultant	Registrar	Intern
Provide me with useful education, knowledge and information	3.1	3.7	3.8
Motivate me to study more in the area	3.2	3.7	3.4
Assist my professional, personal development and career planning	2.7	3.3	3.2
Value and respect my input into the unit or tutorials	2.6	3.6	3.9

The qualitative data were organised into themes. Firstly, medical students would like to assist in the day to day function of the unit in order to gain experiences, as summarised by the quote 'team allowed me to be useful'. Direct interaction to reinforce their knowledge was seen as useful. The difficulty for the clinical team was to balance teaching with service delivery, as some students found some of the tasks as 'unpaid assistants, with some tasks not educational'. Furthermore, certain characteristics of the teachers affected their learning. It was suggested that only units interested in teaching should accept student attachments.

Discussion/conclusion

Medical students learn from every member of the clinical team, but they learn the most from registrars. They learn the most through direct involvement in patient care. Only clinical teams with an interest in education should accept student attachment. Clinical teams should be provided with support and training and they should be recognised for their effort.

Index of presenters