Scholarship in practice: The impact of longitudinal integrated medical student clerkships on academic scholarship in general clinical practice

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Challenges of increasing student numbers, evidence-based medicine in teaching and learning, public expectations, management in the community...

PRISMS: new model of medical education for 21st century

Figure 1 The symbiotic curriculum.

PRISMS:¹

- Key concept is symbiosis between academic institution (medical school) and health services; mutual benefit to both parties.
- Symbiosis currently being reported from longitudinal integrated models of clinical clerkship in North America and Australia.
- In these workplace ‘practicums’, emphasis is placed on the acquisition of professional competence. Skilled practitioners guide learners to develop through experience of, and reflection on, practice²
- One such program is a community-based longitudinal integrated clerkship (LIC) in regional, rural or remote NSW, Australia, the context of this study.
MBBS at UoW

- 4-year graduate-entry course
- Early and longitudinal clinical experience
- Includes a 12-month longitudinal community-based integrated clerkship in Phase 3
- Parallel consulting model
- GP preceptors new to long-term clerkship model
What’s so compelling about a longitudinal placement in a community of practice(s)?

Continuity$^3$

Continuity of care

Continuity of supervision

Continuity of curriculum

Continuity of idealism

Legitimate peripheral participation in a community of practice$^4,5$

Rather than master/student or mentor/mentee relationship

Changing participation and identity transformation in a community of practice
Academic scholarship: *Scholarship Reconsidered*

Boyer\(^6\) proposed that scholarship include 4 different categories:

- **discovery** that includes original research that advances knowledge.

- **integration** that involves synthesis of information across disciplines, across topics within a discipline, or across time.

- **application** (also later called engagement) that goes within or outside the University and involves rigor and application of disciplinary expertise with results that can be shared.

- **teaching and learning** differs from scholarly teaching in that it requires a format that will allow public sharing and the opportunity for application and evaluation by others.
Clinical scholarship definition: Grigsby & Thorndyke\textsuperscript{7}

- systematic observation and scientifically based methods to identify, describe, and solve clinical problems
- occurs in throes of practice; potential for learning how to improve clinical practice
- broad scope, beyond a disease process
- knowledge and methods from other disciplines to enhance understanding
- anticipate trends, needs; track and manage processes, outcomes, impact
- solve clinical problems, enhance clinical care, and improve health of patients, families, and communities.
Research questions from preceptor experiences

• ‘early adopters’ of the UoW longitudinal clerkship model predicted many positive benefits.
• post-placement interviews explored perspectives ‘after the event’.
• emergence of research questions:

In the partnership between the academic institution and the health service, what kind of learning is taking place? Who is developing the curriculum, who is learning from whom, and what kind of scholarship is taking place?
Method

• 28 preceptors: First experience of long-term supervision of an undergraduate medical student using LIC clerkship model
• three contexts: regional, rural and remote health care settings in Australia
• pre- and post surveys about motivation for taking a student, predictions, experiences and outcomes
• questions related to impact of student on learning, quality of care, workload, finances, time etc
Method: scholarly practice?

- transcripts of the post-placement surveys (n=26) were analysed independently by both researchers, and consensus reached for emergent themes relating to **scholarly clinical practice**
- number of respondents and participant quotations are provided.
Results: two clear outcomes

1. Presence or development of aspects of scholarly clinical practice
   1. Reflective practice
   2. Learning in partnership with students
   3. The general practice as an environment where scholarship occurs
   4. Improved systems
   5. The responsibility and obligations associated with being a teacher

2. Improved level of care
1. Reflective practice

Ten GPs (39%) indicated that the presence of the medical student resulted in more reflective practice.

*Basically it makes you reflect on what you are doing...it made me look up evidence-based medicine a bit more*

*It is holding a mirror up to our own practice...net result is the quality of practice is likely to improve*

*You go back to the fundamentals of medicine and you’re a lot more thorough*
2. Learning in partnership with the students

Preceptor / student interaction was recognised as a rich learning experience for both by nineteen GPs (73%)

*The students bring up a range of issues that are often knowledge-based, so occasionally they hit on pure gold or see things, or find things that we’ve missed*

*Students have always got a different angle....brings you back to first principles. You need to be on your game, look things up and sort of learn with the students*

*Not only teaching the student but also teaching yourself...you upgraded your information based on evidence-based medicine*

*I learned a lot because together we’d research stuff that I wasn’t sure of... or a bit rusty*
3. General Practice: an environment where scholarship occurs

The general practice was validated as an integral part of the University and an environment where scholarship occurred. **20 GPs (77%)**

*Changing that pattern of being solo people...to being groups of people who do stuff and interact and report to a bigger organisation*

*It’s been an invaluable experience as a teacher, but I didn’t even know I was a teacher or had an interest in it until now*

*One of the activities I undertook this year was to be an examiner for Phase 2 and 3 final exams at Uni*

*The university has nurtured us and treated us as valuable people*
4. Improved systems

About half of the preceptors (n=12; 46%) indicated that the medical student placement resulted in improved systems; more thorough or evidence-based approach.

...more up-to-date information or highlighting deficiencies in existing systems.

Student brought us up to date with some of the newest teaching (in medical sciences)

up to date knowledge about different things; or talked to students realising that you are not doing that as well as you should

Highlighted deficiencies in way I would have gone about things...brought about a need to be more organised
5. Responsibilities / obligations of being a teacher

Fifteen GPs (58%) recognised their responsibility as a teacher and their obligation to seek further knowledge or skills.

Certainly made me lift my game ..in terms of reviewing what is the state of the art

Made us more aware of our continuing education

Sometimes you don’t know the answers and you’ve got to go and look them up

...more enthusiastic, more encouraging and try to seek that extra bit of knowledge if you need to
Improvement in patient care

Preceptors were asked directly whether involvement in the long-term placement program had improved the quality or safety of care in the practice, or the quality of care they personally delivered.

*Seventeen* preceptors (65%) said the program had resulted in improved care. *Five were unsure or did not know* (19%). *Four preceptors* (15%) felt there was no improvement in care, most indicating they felt the standard of care in their practice was already high.
GPs indicating improvement in quality of care..

Reasons included many of the aspects of scholarship in the emergent themes, namely reflective practice, improved standards or systems, up-to-date knowledge brought by the student, or the GP taking extra care or being more thorough.

*It probably makes you better clinicians*

*..all the things.. you probably do with extra care to make sure there are no mistakes*

*S sometimes the student picks up on some things that I missed.. they might come up with some other investigation*
Conclusions:
What does it mean to be a scholar?

1. Engagement with the professional development of a senior medical student over one full academic year had a significant impact on preceptors’ scholarly practice in terms of reflective practice, learning, teaching, systems improvement, and improved care.

2. The ‘practice’ was validated as a place where scholarship occurs; an academy of learning.

3. The relationship between the practice and the University was valued by the preceptor.
What does it mean for the University?

Rethinking learning....Wenger

‘For organisations it means that learning is an issue of sustaining the interconnected communities of practice through which an organisation knows what it knows and thus becomes effective and valuable as an organisation.’
Communities of practice, academies of learning

• traditionally Universities have valued book learning (holding the knowledge) and impart expertise to learners
• in practice-based professions there is considerable expertise and skills/knowledge in practice
• *rethinking learning*: what can we learn from practice and not just the other way around?
• practitioners constantly use and refine practice in the real world; students in that setting are active learners
Communities of practice, academies of learning

• *viz* Boyer: general practice is the ultimate integrator of care - students actively learn in an integrated environment

• sustaining the GP practice/academy of learning/CoPs will facilitate learning by this model

• the result will be effective and valuable in preparing learners for rural and regional practice.
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The GP preceptors who participated in this research.
References