



Learner-Preceptor Ratios for Practice-Based Learning Across Health Disciplines: A Systematic Review

Reference:

Loewen PS¹, Gamble A¹, Legal M¹, Shah K, Tkachuk S², Zed PJ¹. *Learner-Preceptor Ratios for Practice-Based Learning Across Health Disciplines: A Systematic Review*. Medical Education. 2016 Nov 23. [Epub ahead of print]

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Tags

Clinical domain

Scholar

Educational domain

Teaching and learning

Learning environment

Background

KeyLIMErers are a distinguished community who know that we are all stewards of *systems* of professional education, each with many interdependent parts, all assembled with care to prepare the best possible health professionals. On the podcast, we regularly dissect one element of such systems at a time to enlighten and deepen our thinking about meded. Enter Loewen et al, from UBC's Pharmacy school, who have shown a spotlight on one aspect: preceptor: learner ratios in clinical education.

Every health professional has likely experienced many configurations of clinical teaching and supervision, from 1:1 immersion in one supervisor's practice, to the 1:many impersonal "teams" in ward-based clinical teaching units. Each can be wonderful or terrible...But is the ratio of teachers to learners an important design factor? Is there a "best" ratio?

Purpose

The authors set out to describe the known benefits and challenges of the described preceptor-learner ratios in clinical education.

Type of paper

Systematic review

Key Points on the Methods

Based on the very brief description of the methods, this is a solid systematic review of the available English literature related to preceptor-learner ratios in the health professions. They searched 6 lit databases & Google Scholar, and bravely included anything relevant from the launch of the database to present. They did not appear to search websites or grey literature.

They defined their concepts—glad to see it!—including “practice based learning”: *organized learning by health care trainees that occurred in a patient care setting in the context of a defined training program.*

Inclusion criteria were:

- Described preceptor-learner ratios
- In a clinical setting
- Mentions at least 1 benefit or challenge related to the ratio
- Defines the perspective of at least one stakeholder (learner, preceptor, patient, other/institution)
- Related to a set of health professions
- English language.

Abstracts, conference reports, curriculum reports, and incentive designs were excluded. Papers describing non-clinician preceptors and large-scale system changes were also out.

They screened abstracts with 2 reviewers, and all authors reviewed all full text. They used a data extraction form, and appraised the articles using the “McMaster Scales for Qualitative & Quantitative Papers”.

Key Outcomes

They reported that their search identified 6437 papers, which were screened to find 73 papers for review. These were mostly about nursing, with some PT or OT, plus a smattering from dietetics, SLP, & medicine. All papers were from 4 countries: UK, US, Australia, & Canada.

They found 8 preceptor: learner ratios:

1. Learner as preceptor
2. 1:1
3. 1:2

4. 1:3
5. 1:many
6. Many:1
7. Many:many
8. IPE

There were no patient perspectives.

The authors describe the pros & cons of each arrangement. Notably, 1:1 models were described as enhancing clinical skills & competence, as well as involving greater preceptor attention and assessment. From a system perspective, these were easier to coordinate, and promoted greater productivity. On the downside, fewer learners meant a lack of peer support & social learning, and perhaps a greater workload for preceptors who had to do all the teaching and assessing.

The 1:2 ratio entailed added benefits in the form of knowledge sharing between learners, peer support, teamwork, discussion, and less anxiety. There was greater productivity and teaching capacity for the system.

Overall, the more learners and preceptors, the more impersonal the education. The more learners, the greater the productivity, the social learning, and system capacity for educational spots. However, larger teams also brought the potential for competition, conflict, hierarchy, and poor teacher attention.

Key Conclusions

The authors conclude that while there was great diversity in the literature, the “Goldilocks” ratio of 1:2 preceptor-learners might be best in terms of balancing the interests of preceptors and learners.

However, at the end of the day, it may not be the designated ratio, but the relationship achieved by the parties that fundamentally matters with respect to learning outcomes.

Spare Keys – other take home points for clinician educators

1. Meded / HPE needs more systematic reviews to gather available evidence and allow subsequent authors to advance our field. We have too many “me too” papers.
2. Beware citing literature which does not seem to support an argument in your text (eg intro or discussion).
3. This is a GREAT example of a lit review that goes beyond the usual PubMed search.