Developing and monitoring clinical reasoning — from a distance

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Purpose
Internet-based learning is increasing in popularity in health education
Developing and monitoring clinical reasoning — from a distance

Purpose
Internet-based learning is increasing in popularity in health education
Does it have a place in clinical mentoring and the development of clinical reasoning?

Content
• Elements of OMPT training - overview
• Distance mentoring of clinical reasoning
  • Evidence of effectiveness
  • Examples
  • US experiences
• Summary
Elements of OMPT Training

Demonstration of critical use, application of, advanced level of, clinical expertise in:

- KNOWLEDGE
- SKILLS
- ATTRIBUTES

— in 10 competency dimensions

IFOMPT Standards 2008

Elements of OMPT Training

- the 10 competency dimensions

IFOMPT Standards 2008

Demonstration of critical use, application of, advanced level of, clinical expertise in:

1. EBP
2. Biomechanical sciences
3. Clinical sciences
4. Behavioural sciences
5. OMPT knowledge
Elements of OMPT Training - the 10 competency dimensions
IFOMPT Standards 2008

Demonstration of critical use, application of, advanced level of, clinical expertise in:

1. EBP
2. Biomechanical sciences
3. Clinical sciences
4. Behavioural sciences
5. OMPT knowledge

Enabling effective management of patient/client; advanced level of:
6. Clinical reasoning skills
7. Communication with patient
8. Practical skills
Elements of OMPT Training
- the 10 competency dimensions

Enabling effective management of patient/client; advanced level of:

9. Understanding and application of the research process
10. Clinical expertise and continued professional commitment to the development of OMPT

Elements of OMPT Training

✓ Didactic – theoretical instruction
✓ Didactic – practical training in techniques
✓ Clinical mentoring (patient/client supervision)
✓ Development of clinical reasoning
✓ Mentoring/modeling professional activities & continuous advancement
Evidence of Effectiveness

How much of the OMPT training can be done effectively from a distance?

✓ Didactic – theoretical instruction

? Practical training in techniques
- Clinical mentoring with patient/client
- Development of clinical reasoning
- Professional advancement mentoring

Key words: Distance mentoring, clinical mentoring, health occupations, computer-assisted

– 10 articles (no PT/OMPT)
Evidence of Effectiveness

- Internet-based learning has similar effectiveness as non-internet-based traditional methods
- Studies of physicians, nurses, dentists and pharmacists
- Outcome benefit small for training skills, or patient effects

Cook et al JAMA (2008) Internet-based learning in health professional: a meta-analysis

OMPT Clinical Mentoring – distance Evidence

- Online discussions of patient care
  – Students talked based on personal or clinical experience but rarely attempted interpretation or explanation
  – Faculty posed questions and prompted student discussion but rarely corrected students, highlighted key learning points or summarized discussions

Distance Mentoring of Clinical Reasoning

Clinical mentoring “in-person”  
(mentor + student + patient/client)

• How much can/should be done at a distance?
• Expensive, most important and time consuming part of OMPT training

Distance Mentoring of Clinical Reasoning

Student reflection before & after the 1:1 time with mentor + patient

+/-

Discussions of patients not seen by mentor

+/-

Theory and practical knowledge instruction is case-based
OMPT Clinical Mentoring – distance

- Social media policies
  – Medical schools should develop policies for on-line behaviours & patient confidentiality
  (Kind & Genrich, Med Educ Online. 15. 2010)

- Patient privacy
  – Maintain patient privacy; protect sensitive information
  – Never use name of patient, doctor or clinic

Clinical reasoning mentoring from a distance – examples

Internet-based

Real-time
- Chat room
- WebEx, Webinar etc., virtual meetings, interactive phone conferencing, with desk top sharing
- Virtual grand rounds
- Skype & camera etc., etc

Delayed interaction
- Message board
- E-mail (chain), etc.
Clinical reasoning mentoring from a distance – examples

Internet-based *real time*

**Advantages:**
- Immediate feedback
- Immediate assessment

**Disadvantages:**
- Time zones
- Coordinating time of mentor with 1....10 students

Internet-based *delayed feedback*

**Advantages:**
- Mentor & student can communicate when they have time
- Time for student to reflect, search evidence, etc.

**Disadvantages:**
- Often multiple communications to clarify questions etc..
- Feedback may be too late for 2nd patient visit etc..
Clinical reasoning mentoring from a distance – US experiences

Internet-based - distance mentoring

5 of 20 OMPT programs in USA actively experimenting with distance mentoring

- Typically part-time multi-site programs

• TIME INTENSIVE for faculty
• Positive for student and faculty
• Facilitates students in underserved areas
• No measurement of outcomes or comparisons with “in-person” mentoring

Summary

• The clinical mentoring in OMPT will always need ”in-person” hours (mentor + student + patient)
  – but many aspects can be enhanced utilizing distance learning
  – Is it as efficient and effective as “in person”?