

A Multifaceted Approach to Enhancing Medical Knowledge and Improving Board Examination Scores.

Timothy M. Daly DO

Lehigh Valley Health Network, Timothy_M.Daly@lvhn.org

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A Multifaceted Approach to Enhancing Medical Knowledge and Improving Board Examination Scores

Timothy Daly DO

Lehigh Valley Health Network, Allentown, PA

Idea

- Use evidence-based techniques, both distributed practice and practice tests, coupled with a supportive environment to help residents build their knowledge base.

Rationale

- **Problem:**
 - Residents have had lower than average pass rates on the ABFM exam 2010-2013, several key content areas were identified.
- **Facts:**
 - ITE exam performance is a proven indicator of success on the ABFM board exam; both are indicators of medical knowledge.¹
 - Learners who have developed metacognitive skills, have an awareness of their study needs and skills and are more likely to be successful in passing board exams.
- **Keys to a potential solution:**
 - Educational literature points to proven techniques that improve knowledge acquisition.²
 - use of practice tests
 - distributed practice
 - An intervention using email based practice tests demonstrated that residents who participated in practice tests improved ITE exam performance.³
 - Creation of a collaborative environment which supports positive relationships, builds competence and encourages increasing autonomy

Methods

Voluntary participation for residents, N=18. Three pronged intervention.

1 Metacognitive Skills - Enhancing the environment through counseling on study skills.

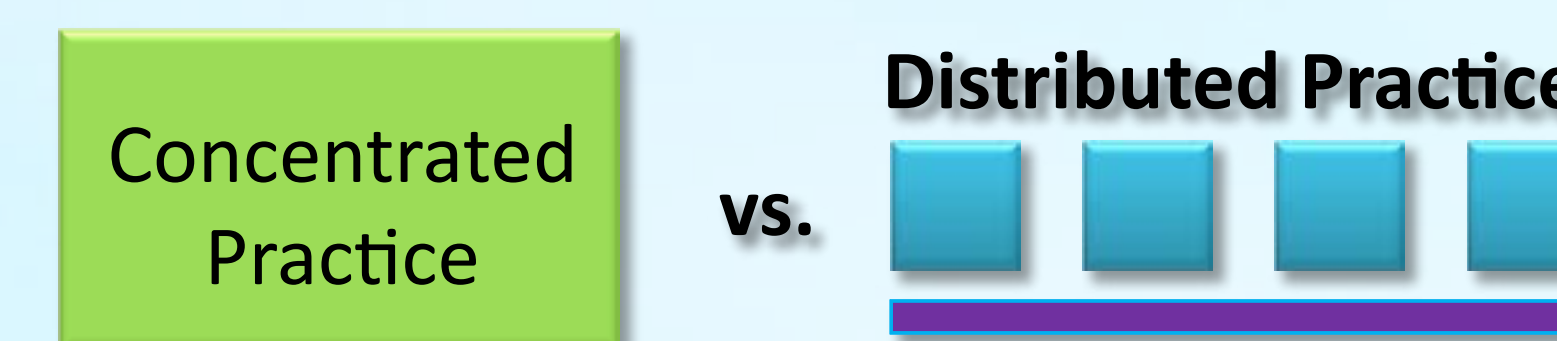
- Done semiannually at resident, faculty, advisor meetings

2 Practice Testing - Pre and post testing for selected content with didactic sessions.

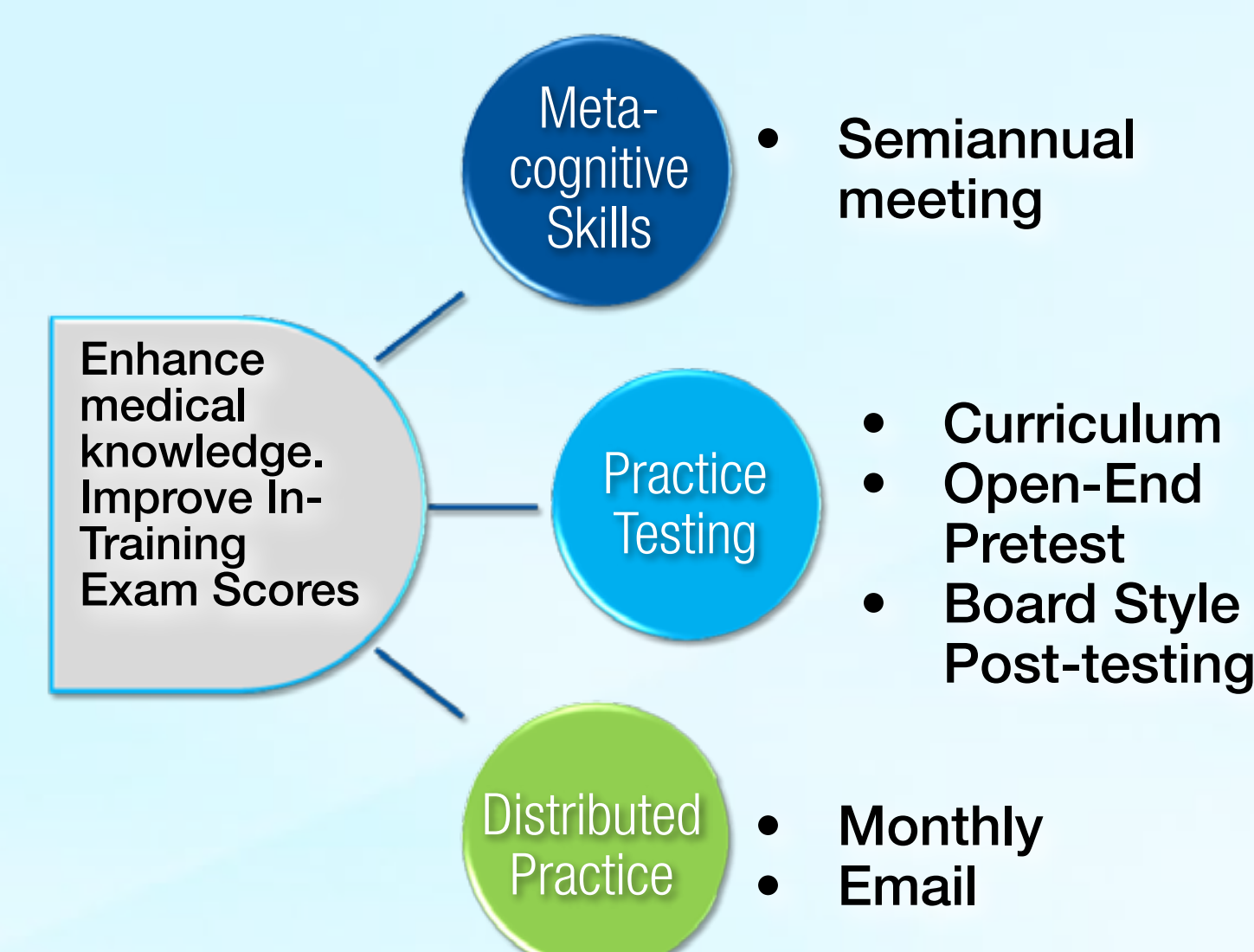
- Coordinated with individual faculty who lead various aspects of curriculum
- Pre testing in form of open ended questions
- Post testing board style

3 Distributed Practice - Email based testing on key content areas accompanied by follow response from faculty.

- 10 Board Review questions monthly
- Response email with answers, suggesting reading, encouragement



Distributed Practice. Digital image. *Distributed Practice*. Blog. Learningelevated.com, n.d. Web. 10 Jan. 2015.



Evaluation

- Baseline survey of independent study activities
- Longitudinal tracking of participation in each of three prongs
- After 6 months, survey of each resident for study activities and for qualitative feedback on program
- Annual review of ITE exams so that intervention can be modified to meet learner needs
- ABFM pass rates tracked over three year period

Impact on the Field

- If effective, this intervention could be a model for other programs which seek to enhance medical knowledge acquisition in their residents by encouraging adult independent learning.

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