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## Fellow as Teacher: Advancing Consultative Medicine Through Teaching

***Jakob I. McSparron, MD***

*Associate Program Director  
BIDMC Internal Medicine Residency*

*Associate Program Director  
Harvard Fellowship in Pulmonary and Critical Care Medicine*

*Education is at the heart of patient care.*



## Disclosures

- Partners COE in Medical Education



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## How do your fellows teach as consultants?



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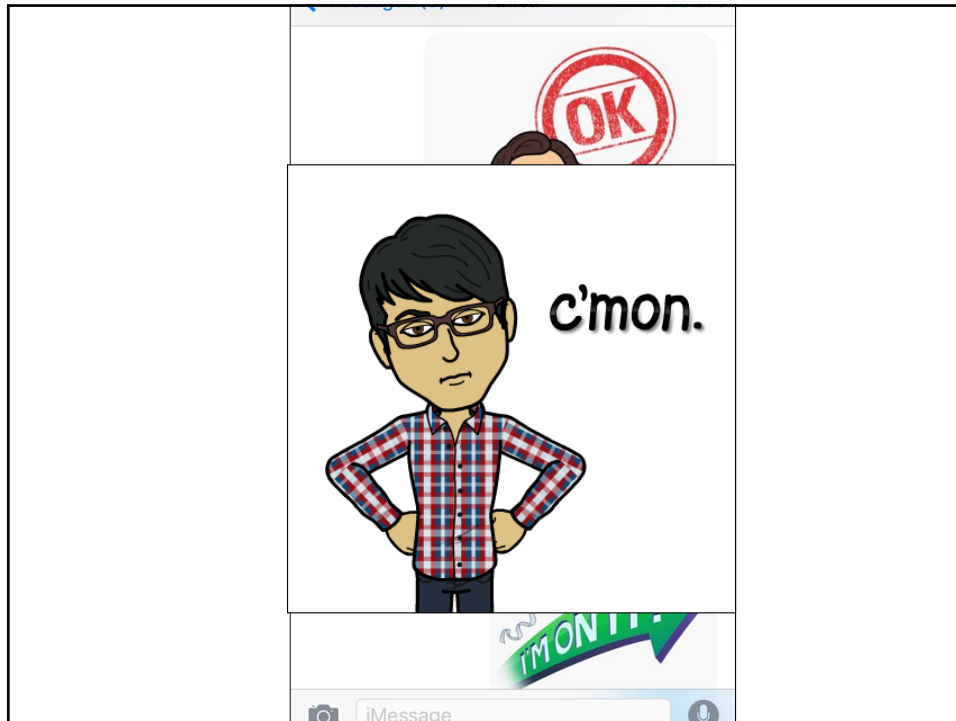


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Sorry for the delay, been running around - got some recs for your lady, suspect AAV, get ANA, ANCA, nonconCT, see note for rest of recs

iMessage



**Medical Education**

Series Editors: Henry Fessler, M.D., Tao Le, M.D., M.H.S., and David Roberts, M.D.

**Career Development for the Clinician-Educator**

**Optimizing Impact and Maximizing Success**

David H. Roberts<sup>1</sup>, Richard B. Goodman<sup>1,2</sup>,  
<sup>1</sup>Carl J. Shapiro Institute for Education and Research,  
 Massachusetts; and <sup>2</sup>Arnold School of Public Health,

**PERSPECTIVES**

**Training the Teachers**

**The Clinician-Educator Track of the University of Washington Pulmonary and Critical Care Medicine Fellowship Program**

Rosemary Adamson<sup>1,2</sup>, Richard B. Goodman<sup>1,2</sup>, Patricia Kritek<sup>1</sup>, Andrew M. Luks<sup>1</sup>, Mark R. Tonelli<sup>1</sup>, and Joshua Benditt<sup>1</sup>

<sup>1</sup>Division of Pulmonary and Critical Care Medicine, University of Washington

**PERSPECTIVES**

**Fellows as Teachers: Raising the Educational Bar**

Eli M. Mikoslavsky<sup>1</sup>, Debra Boyer<sup>2</sup>, Ariel S. Winn<sup>3</sup>, Diane E. J. Stafford<sup>4</sup>, and Jakob I. McSparron<sup>5,6</sup>

<sup>1</sup>Department of Medicine, Division of Rheumatology, Allergy and Immunology, Massachusetts General Hospital, Harvard Medical School, <sup>2</sup>Division of Respiratory Diseases, Boston Children's Hospital, Harvard Medical School, <sup>3</sup>Division of General Pediatrics, Boston Children's Hospital, Harvard Medical School, <sup>4</sup>Division of Endocrinology, Boston Children's Hospital, Harvard Medical School, <sup>5</sup>Department of Medicine, Division of Pulmonary, Critical Care, and Sleep Medicine, Beth Israel Deaconess Medical Center, Harvard Medical School, and <sup>6</sup>Carl J. Shapiro Institute for Education and Research, Beth Israel Deaconess Medical Center, Boston, Massachusetts



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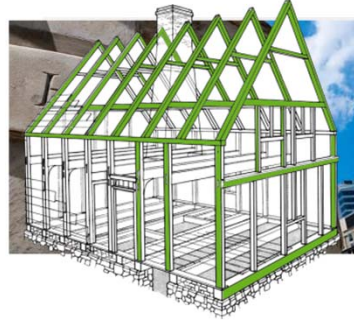
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## Objectives

- Describe barriers and facilitators that can impact the fellow-resident interaction
- Discuss local subspecialty fellows' attitudes towards teaching
- Describe a novel framework for teaching in consult setting



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## Consult interaction example

- 28 y/o M admitted with pleuritic chest pain
- ECG demonstrates diffuse ST segment elevations
- Troponin is mildly elevated
- Primary team suspects pericarditis, but would like cardiology input to make sure they're not missing an acute coronary syndrome

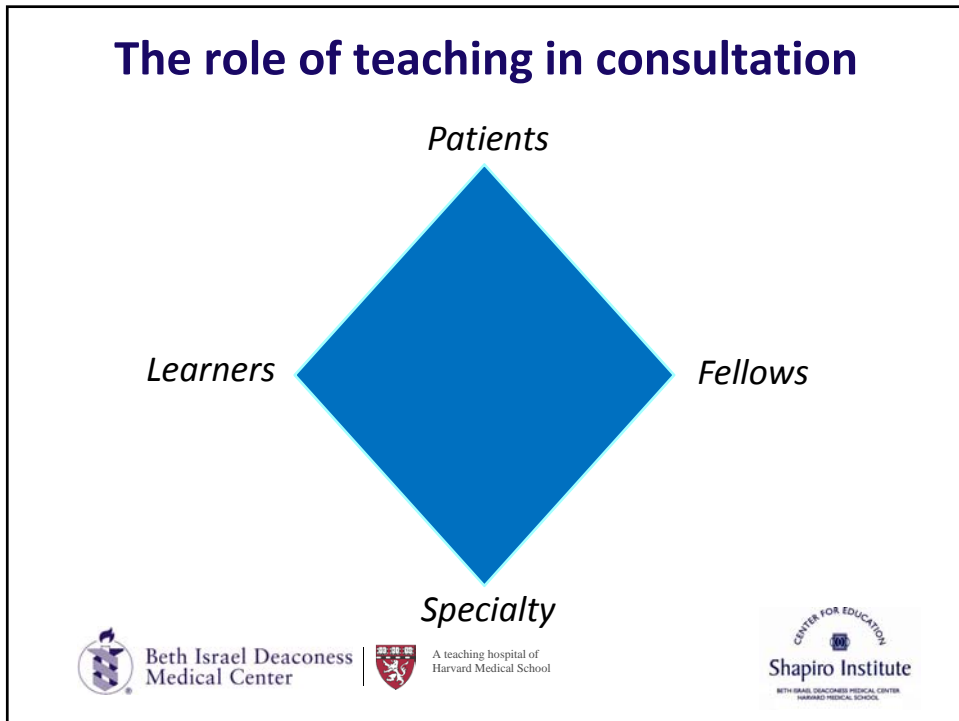


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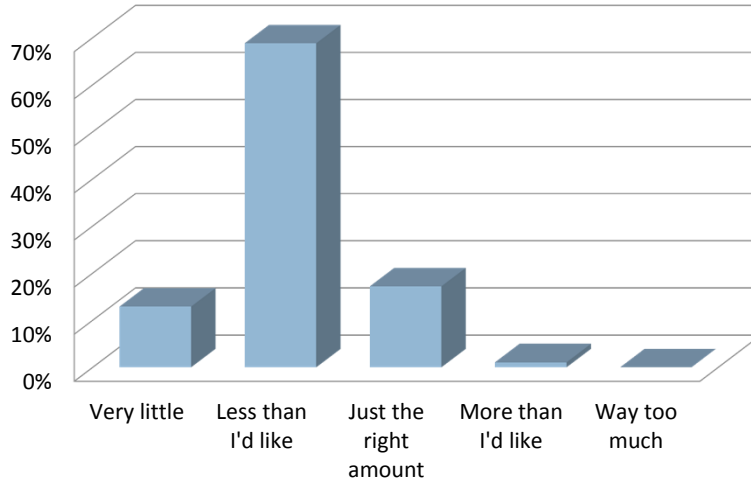


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## Residents want more teaching from fellows



N=93 (57% response rate)



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Miloslavsky et al. MedEdPublish 2014

## What factors affect consultation?

### Facilitators

- Effective communication
- Professionalism
- Trust

### Barriers

- Tension during telephone interactions
- Opposing views
- Inadequate communication

Goldman et al. Arch Intern Med 1983  
 Kessler et al. J Emerg Med. 2012  
 Chan et al. Acad Emerg Med. 2014



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## A qualitative look at the consult interaction

- 4 focus groups
  - MGH IM residents
  - BWH IM residents
  - MGH and BWH IM subspecialty fellows
  - *Fellow teaching award winners*
- 34 participants
  - All three PGY levels from both hospitals
  - 7 subspecialties
- 4 investigators coded transcripts



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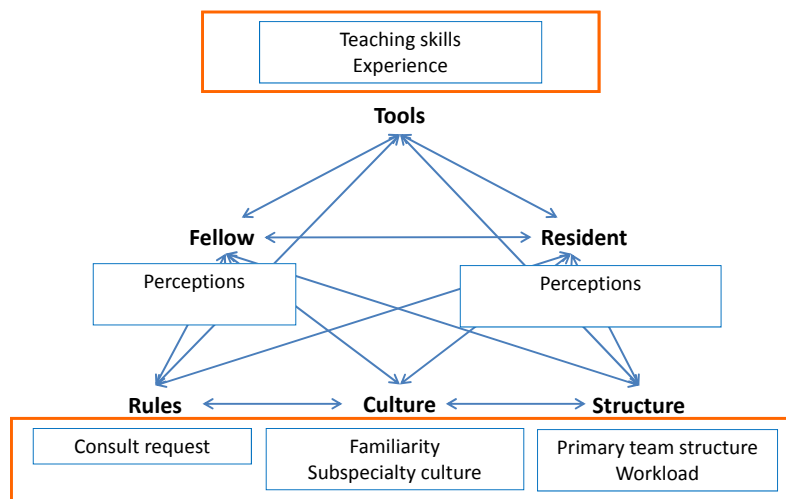
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## Factors impacting the resident-fellow teaching interaction



N = 34

Miloslavsky et al, Medical Education 2015

## Best practices

### Fellows

- Just say “yes”
- Limit damage of poor consult questions
- Set expectations
- Build familiarity

### Residents

- Have specific question
- Relay your thoughts
- Set expectations
- Initiate teaching interaction
- Build familiarity



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## On to a needs assessment...



*“Besides caring too much? I’d probably have to go with Kryptonite.”*



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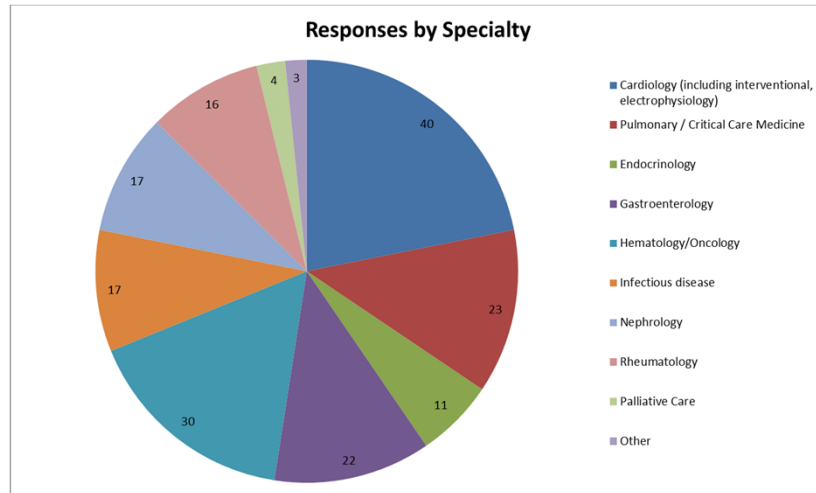
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## Survey of subspecialty fellows



N = 183



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Unpublished data

## Fellows' anticipated career paths

Anticipated activities during career	%
Academics	85%
Patient care	89%
Teaching	83%
Clinical research	72%
Basic science research	36%
Medical education scholarship	23%
Administration	26%
Not sure	4%

N = 183



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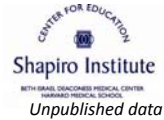
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Unpublished data

## Fellows' attitude towards teaching

Question	Agree or strongly agree
I enjoy teaching residents and medical students	94%
If I had more time I would do more teaching	95%
My teaching skills can be improved	93%
I want to receive more feedback about my teaching	74%
I am interested in receiving training to improve my teaching skills	75%

N = 183

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Unpublished data

## From needs assessment to curriculum....



*“All I’m saying is now is the time to develop the technology to deflect an asteroid”*



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## Fellow As Clinical Teacher (F.A.C.T)

- Hands-on practical teaching workshops
  - Adult learning applied to consult teaching
  - Focus on **assessing learner** and **effective feedback**
  - Barriers: systems, fellow, resident
  - Solutions
  - A **five minute** approach



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## PARTNER approach

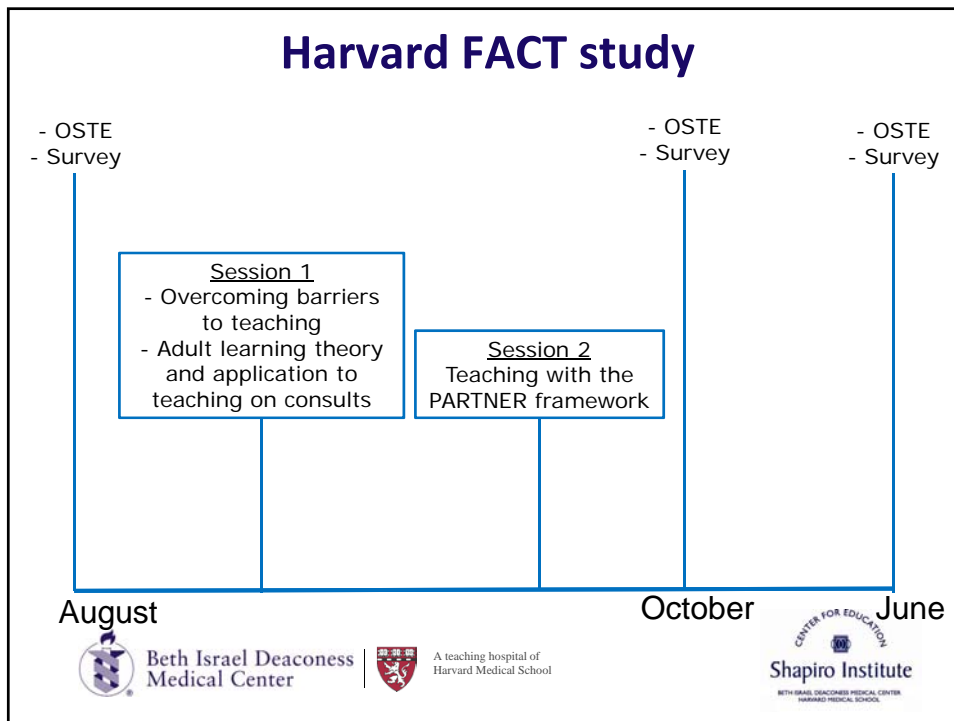
- **P**artners with resident – set expectations
- **A**ssess the learner
- **R**einforce positives / give feedback
- **T**eaching objectives
- **N**ew knowledge – short teaching points
- **E**xecute recommendations
- **R**evue – questions and invite collaboration



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## Objective Structured Teaching Exercise

- Detailed scenario
- Trained “standardized intern”
- Fellow instructions
- Two trained raters



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Morrison EH et al, Acad Med. 2003

## Harvard OSTE Performance

Item	Pre	Post	End	P-value (pre-post)
Oriented learner to expectations	3.04	3.73	3.77	<0.01
Expressed respect for learner	4.40	4.90	5.00	<0.01
Evaluated learner's knowledge of factual medical information	3.19	4.19	4.77	<0.01
Evaluated learner's ability to analyze or synthesize knowledge	3.13	4.10	4.41	<0.01
Determined effective objectives for discussion	3.38	4.17	4.86	<0.01
Presented well organized material	3.41	4.27	4.72	<0.01
Effectively managed time during session	3.52	4.62	4.41	<0.01
Provided positive feedback	3.46	4.77	4.95	<0.01
Provided corrective feedback	3.21	4.75	4.55	<0.01
Relayed recs and closed the loop	3.62	4.5	4.27	<0.01
Overall teaching effectiveness	3.31	4.46	4.55	<0.01



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Miloslavsky, McSparron, et al, JGME 2015

## Conclusions

- Fellow teaching during consultation can have a broad impact
- Barriers exist in the hospital environment but are modifiable
- The FACT curriculum and PARTNER framework can improve fellows' teaching skills



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- Eli Miloslavsky
- Grace Huang
- David Roberts
- Richard Schwartzstein
- BIDMC faculty, fellows and residents
- ATS
- APCCPMD
- PEPTDA



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