

# Case-Based Learning as COMLEX Board Review and Aid to Transitions

*Ruth D. Thornton<sup>y</sup>, Susan Hingley<sup>\*</sup>, and Richard Kriebel<sup>‡</sup>*

*Departments of Biochemistry/Molecular Biology<sup>y</sup>, Pathology/Microbiology/Immunology<sup>\*</sup>, and Neurology/Physiology/Pharmacology<sup>‡</sup>  
Philadelphia College of Osteopathic Medicine*

## GOALS FOR CASE-BASED COURSE:

1. To prepare 2nd year medical students for part 1 COMLEX
2. To assist in the transition from classroom to clinical rotations

## FEATURES OF THIS COURSE:

- Non-linear Powerpoints of cases
- Basic Scientist and Clinician present at each class
- Modular format (flexible and easily transferable)
- Use of 'touch pads' for instant feedback
- Use of 'ExamMaster' for COMLEX Board-style questions
- Cases & supplemental information posted on BlackBoard
- Use of STAN (human patient simulator) in select cases to simulate ER situations

## Evolution of the Case-Based Course

2004: 4 modules

Module	Monday case	Friday Review
Oncology	Lung Cancer	Oncology and cell cycle review
Cardiovascular	Myocardial Infarction	EKG review
Rheumatology	Lupus (SLE)	Immunology and Joint diseases
Diabetes	Gestational Diabetes	Insulin-dependent diabetes (DKA)

Cases in small groups, each with one facilitator

Graded (Pass/Fail): by a point system (9 of 12 points for pre- and post-tests and attendance)

2005: 5 modules

Module	Monday case	Friday Review
Infectious process	Sepsis	ExamMaster Questions
Oncology	Hodgkins Disease	ExamMaster Questions
Rheumatology	Lupus (SLE)	ExamMaster Questions
Diabetes	DKA—Stan simulator	ExamMaster Questions
Cardiovascular	Review of EKG	ExamMaster Questions

Cases in large group, each with a team of a Basic Scientist and a Clinician

Graded (Pass/Fail): by passing each module's 13-15 question exam on Blackboard

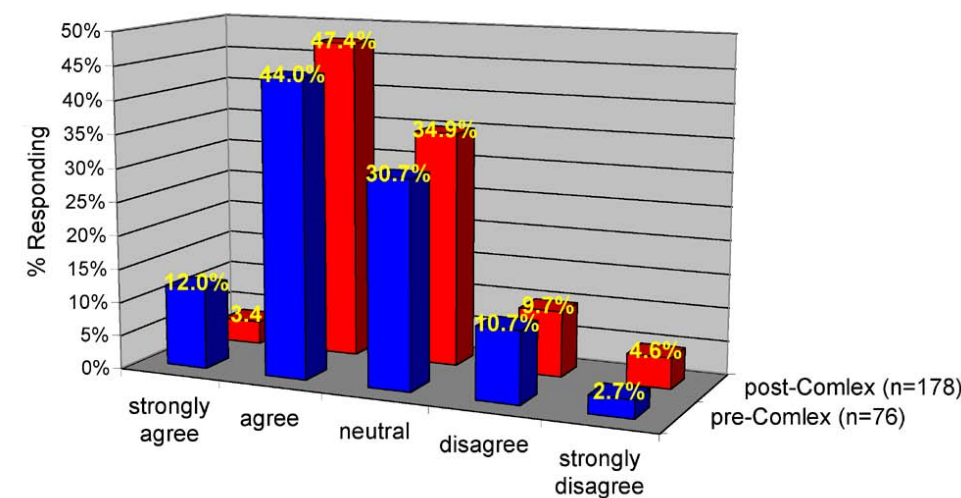
## Course Evaluations:

Pre-COMLEX—submitted on Blackboard immediately following completion of the class, May, 2004 (n=76)

Post-COMLEX—evaluations distributed during clinical rotations between Aug.-Dec., 2004 (n=178)

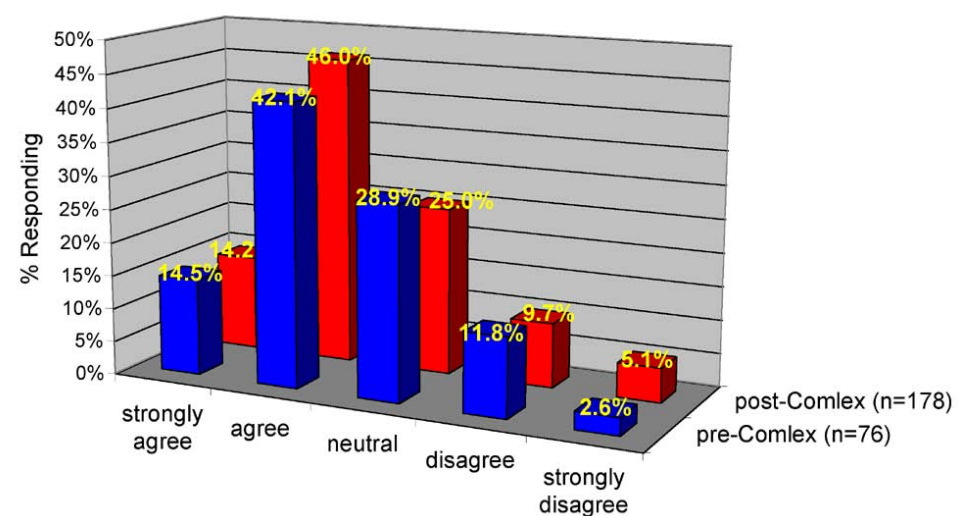
## COURSE EVALUATIONS

### I was satisfied with the outcome of this course:



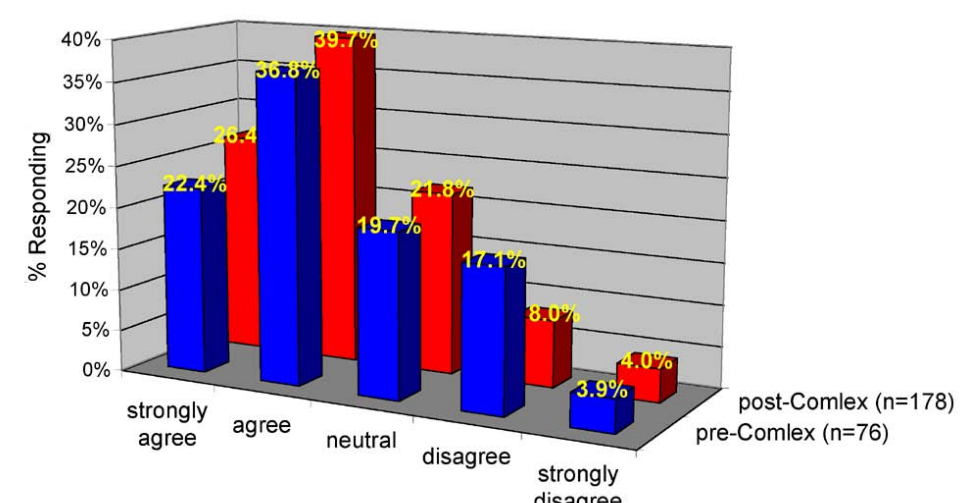
- 50-55% of the students responded positively to this statement; -14% were dissatisfied

### I recommend that this course be given to next year's students:



- Almost 60% of the students agreed with the statement, while -15% disagreed

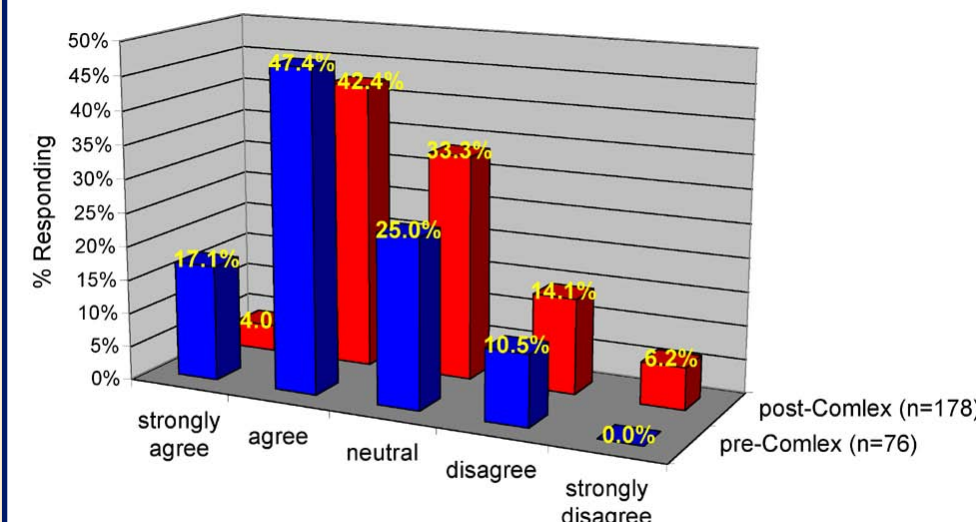
### I would prefer more case-based exercises integrated throughout the first 2 years



- In both surveys -60% of the students responded positively to this statement.

## TRANSITION TO CLINICAL

### This course helped me prepare for clinical rotations:



- ~50% of the students responded positively to this statement both before & after starting rotations

## CONCLUSIONS

### Is the course useful to prepare for clinical rotations?

- Probably not alone; however, written comments indicated that a subset of students like the case format with its clinical approach
- Written comments requested more emphasis on differential diagnosis and on SOAP notes

### Proposed changes:

- Integrate the case modules throughout the systems courses
- Emphasize differential diagnosis and
- Incorporate SOAP notes into the cases
- Make the case information available on Bb earlier

### Proposed changes for Subsequent Years:

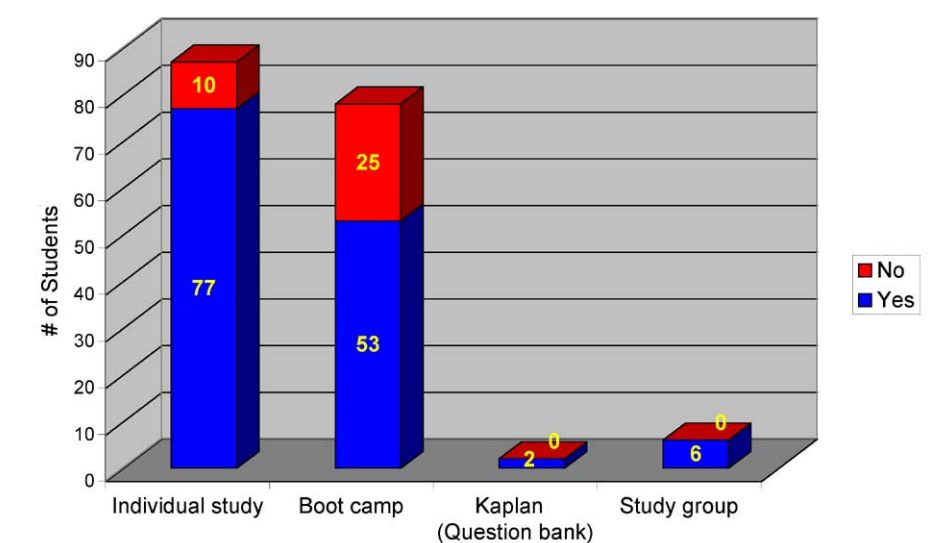
Module	Case	Integrate into Systems Course:
Infectious process	Sepsis	Gastrointestinal or Cell & Tissue
Oncology	Lung Cancer	Oncology/CV
Oncology	Hodgkins Disease	Oncology/CV
Rheumatology	Lupus (SLE)	Cell & Tissue
Diabetes	DKA	Endocrine
Diabetes	Gestational diabetes	Ob/Gyn
Cardiovascular	Myocardial Infarction	Cardiovascular

Grade determined by each course; make each 13-15 question exam available.

Emphasize differential diagnosis and SOAP notes during cases, with more active student participation.

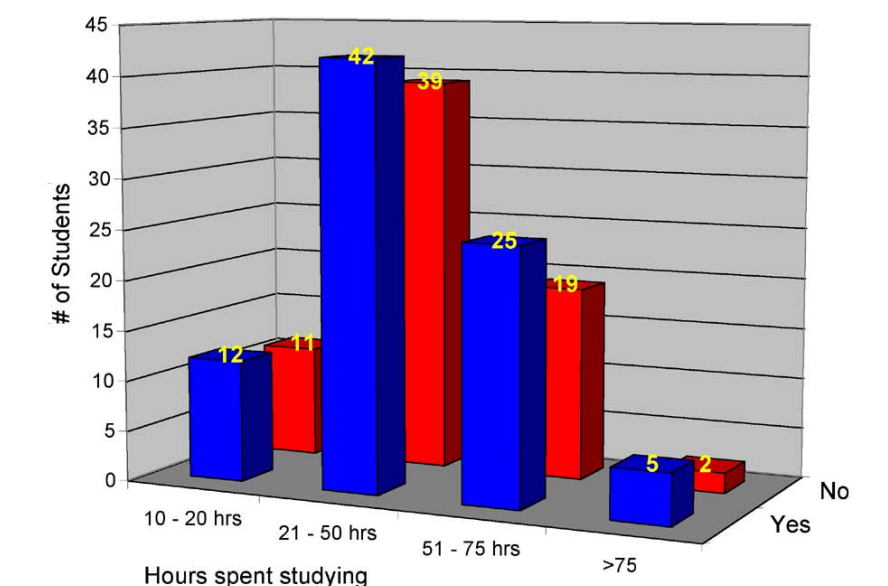
## BOARD PREPARATION

### What was your primary method for preparing for the Boards? Would you recommend this method to others?



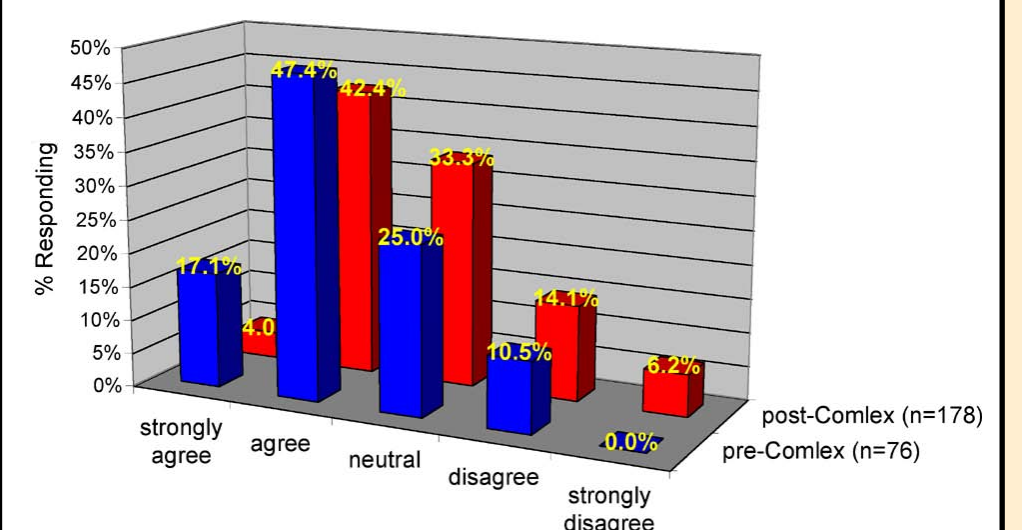
- Individual study (87 students; 50%) & Boot Camp (78 students; 45%) were the primary methods used to study for boards (n=173)
- 88.5% of the students primarily using Individual study would recommend this to others
- 68% of the students attending Boot Camp would recommend this to others

### Did you have enough time to prepare for Boards?



- After taking boards, approximately half of the students felt prepared for boards, regardless of hours spent studying
- Most students began studying for the June COMLEX exam in March (44%) or Feb. (27%). (data not shown)

### This course helped me prepare for Boards:



- Before taking Boards, ~65% thought the course helped; however, in retrospect, only 46% thought the course was helpful for the Boards

## CONCLUSIONS

### Is the course useful for COMPLEX part 1 Boards?

- The course is useful for a subset of students
  - Likely to be dependent on their learning style
- Students are unsure of its usefulness prior to taking Boards
  - Not knowing what to expect may increase anxiety level about COMLEX