GOAL: Goal Oriented Assessment of Learning Pilot Study

PD III Group Project
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Medical student learning within core clerkships is largely dependent on the teaching of residents and interns.

This teaching is:
- Received in variable amounts by students
- Relatively non-uniform
- Contains unpredictable amounts of overlap and omission
Students are also not prepared to structure their own learning and the efforts of their intern/resident teachers. This lack of structure leads to:

- Dissatisfaction among both medical students & residents
- Decreased confidence in physical exam & diagnostic skills
- Less optimal education which may result in less optimal patient care.
In a study conducted by Smith, et al. in 2003, it was demonstrated that 8% of interns and 36% of residents spent no time teaching 3\textsuperscript{rd} year medical students. As a result, students did not feel confident with various subject matter and exam skills. Especially worrisome since recent trends show a dramatic shift of teaching responsibility from Attendings to House Officers (Xu, et al. 1998).
Hypothesis

- Improving the structure of the education encounter between medical students and residents will:
  - Improve student and resident satisfaction
  - Lead to a better student-resident relationship
  - Allow students to better assess their educational objectives and progress
  - Help interns and residents better structure their teaching efforts
  - Lead to better quality medical training and patient care
Methods

- Pilot study will begin with a 4 week period of standard teaching during the 1\textsuperscript{st} inpatient month of the Core Medicine Clerkship at BIDMC.

- A satisfaction survey will be given at the conclusion of this four week period.

- Students and residents will be surveyed for satisfaction assessing measurements such as quality of teaching, time spent teaching, student confidence with topics covered, etc.
Goal Oriented Assessment of Learning - Satisfaction Survey 1

Please circle your designation: Student House Officer

Please rate the following on a scale of 1 to 10. (1 = poor & 10 = excellent)

1. The amount of one on one teaching during the past four weeks. __________
2. The quality of one on one teaching during the past four weeks. __________
3. How the current core medicine clerkship system encourages/discourages resident-student communication. __________
4. Students only: Learning experience during the past 2 weeks. __________
   House officers only: Teaching experience during the past 2 weeks. ______

Additional Comments:

Thank you!
Following the 1\textsuperscript{st} month of standard teaching, an experimental phase will begin.

During the experimental phase (2\textsuperscript{nd} inpatient month), a checklist consisting of clinical skills for 5 areas of the physical exam will be introduced.

Residents will be asked to initial next to each physical exam skill covered and students will counter-initial if they feel it was adequately taught.
Goal Oriented Assessment of Learning (GOAL) Checklist

For each of the following exam skills, please first observe the student perform the exam and have him/her report the findings. Was the technique correct and the findings accurate? Next, please demonstrate the proper technique and explain how to obtain the result. Finally, re-observe the student perform the exam.

1. Thyroid Disease
   a. Palpation of thyroid. (size/texture/nodules?)

2. Heart Disease
   a. Measurement of JVP
   b. Heart Sounds
   c. Murmurs and associated maneuvers (MR, MS, AS, AI, TR, HOCM)
   d. Grading of peripheral edema
   c. Lung Exam and findings

3. Pulmonary Disease
   a. Assessment of respiratory distress
   b. Diaphragmatic excursion by percussion
   c. Identification and location of breath sounds by auscultation
   d. Signs of chronic hypoxemia: clubbing & cyanosis

4. Liver disease
   a. Measurement of liver span
   b. Palpation of liver edge
   c. Palpation of spleen
   d. Assessment of ascites: fluid wave/shifting dullness
   e. Skin findings
   f. Asterixis

5. Diabetes & Hypertension
   a. Fundoscopic exam – vessels and disk margins
At the end of the second four week period, checklists will be gathered and number of areas covered will be tallied.

A repeat satisfaction survey will be given at the conclusion of the experimental phase.

We will then compare satisfaction after the standard teaching period with that of the experimental phase.
Goal Oriented Assessment of Learning - Satisfaction Survey 2

Please circle your designation: Student House Officer

Please rate the following on a scale of 1 to 10. (1 = poor & 10 = excellent)

1. The amount of one on one teaching during the past four weeks. ____________

2. The quality of one on one teaching during the past four weeks. ____________

3. How use of the pilot teaching topic checklist encourages/discourages resident-student communication. __________

4. Students only: Learning experience during the past 2 weeks. ____________
   House officers only: Teaching experience during the past 2 weeks. __________

5. Use of pilot teaching topic checklist. __________

Additional Comments:

Thank you!
Data Analysis

- Take qualitative data & translate to quantitative data
- Evaluate for statistical significance in:
  - Differences in student satisfaction surveys
  - Differences in HO satisfaction surveys
- Determine if there are specific areas of significant difference
- Determine if GOAL checklist provided significant benefit on education
- Consult biostatistician for confirmation of appropriate data analysis.
Drs. Sara Fazio and Reed Drews, directors of BIDMC Core Medicine Clerkship, have agreed to allow pilot study to be conducted within the BIDMC clerkship.

Now awaiting final consent from residency director, due to involvement of House Officers in pilot.

January 2005 – Pilot study scheduled to begin (pending residency director approval)

April 2005 – Results of pilot study.

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