# Patient Safety Education for Medical Students: Report of 3 Years of a Curriculum at New York Medical College

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# TODAY'S PRESENTATION

I. Introduction
II. Curriculum Methods
III. Evaluation Methods
IV. Results
V. Discussion
VI. Brief Video Clips

# I. Introduction

- Increasing recommendations to educate physicians-in-training about safety:

  IOM Quality Initiative: Phase 3 2003

  "Health Professions Education: A Bridge to Quality"

  AAMC:Patient Safety & Graduate Medical Education 2003

  HRSA:Collaborative Education to Ensure Patient Safety 2000

- Very little in literature on educational curricula

# II. Curriculum Methods

The Goals are to introduce students to:

- the prevalence and origins of errors in medicine,
- the physician's responsibility and role in the prevention of errors, and
- avenues for communicating an error to a patient.

# II. Curriculum Methods

A. Didactic
B. Required Readings
C. Videotape/Feedback Session

Started in July 2000 for all 3rd Year Medical Students

# II. Curriculum Methods

## A. Didactic: 1 hour during each 4 wk clerkship.

- Discussion of non-medical errors & students' reactions;
- Read aloud excerpt from one real medical error;
- Family Physicians & medical errors;
- Brief review of definitions, epidemiology, inevitability of error, & systems vs. individuals;
- Review of what students should know- AHRQ Web M&M, JCAHO Requirements.

# II. Curriculum Methods

## B. Required Readings


Cohen, J.J. (2000). Behold the patient-safety genie. Academic Medicine, 75, 2, 105.

Madsen, L.E.(2002). Diesel gas, rice and medical errors. The Pharos.

Wu, A.W., Cavanaugh, T.A., McPhee, S.J., Lo, B. & Micco, G.P. (1997). To tell the truth. JGIM, 12, 770- 775.

# II. Curriculum Methods

C. Videotape/Simulation

- 4 - 6 students per three hour session
- Session begins with ½ hour preparation for students with Family Medicine faculty
- Each student is videotaped with a Standardized Patient (actor) for 10 -15 minutes
- Group review and feedback on tapes

# II. Curriculum Methods

## C. Videotape/Simulation

Sample Scenarios

- 45 year old patient given samples of Celebrex 200mg instead of Celexa 20mg.

- 48 year old patient returns after 2 months of continued cough. Student realizes that chest x-ray done on first visit was never followed-up.

# III. Evaluation Methods

A. Matched Pre- and Post- Intervention survey on Student Awareness

B. Student Evaluation of the Curriculum

C. Six Month follow up survey (not-matched)

D. AAMC Graduation Questionnaire

# IV. Results: The Sample

Subjects were enrolled in this study over three academic years:

2000-2001 (n=193)

2001-2002 (n=188)

2002-2003 (n=191)

# IV. Results
# A: Pre/Post Awareness

(1=extremely aware; 5=not at all aware)

| | Pre | | Post | | P-Value |
|---|---|---|---|---|---|
| | Mean | Range | Mean | Range | |
| Awareness of your strengths in communicating a medical error to a patient. | 3.26 | (1-5) | 2.27 | (1-5) | <0.01 |
| Awareness of your weaknesses in communicating a medical error to a patient. | 3.23 | (1-5) | 2.20 | (1-5) | <0.01 |

# IV. Results
## A: Pre/Post Awareness

(1=extremely aware; 5=not at all aware)

| | Pre | | Post | | P-Value |
|---|---|---|---|---|---|
| | Mean | Range | Mean | Range | |
| Awareness of the change that you, as a practicing physician will make mistakes some with serious adverse consequences. | 2.20 | (1-5) | 1.77 | (1-4) | <0.01 |
| Awareness of adverse outcomes to errors in medicine. | 2.35 | (1-5) | 1.95 | (1-5) | <0.01 |

# IV. Results

## B. Student Evaluation of Curriculum

**N=567**

89% reported an increase in their awareness of their strengths about discussing a medical error with a patient.

96% reported that they strongly agreed or agreed that the videotape and feedback exercise was a valuable learning experience.

# IV. Results

## B. Student Evaluation of Curriculum

90% of the students who responded agreed or strongly agreed that "the opportunity to present an error to a patient increases my confidence about discussing this issue with patients."

# IV. Results

## C. Six Month Follow-Up

12 item survey

The first two years (2000-2002) have been compiled and analyzed.

Response Rate:

2000-2001 42%

2001-2002 36%

# IV. Results
## C. Six month Follow-Up

| | % Strongly Agreed/Agreed |
|---|---|
| It is important to teach students about medical errors | 97% |
| The 3rd year is the more appropriate time to discuss medical errors then the 1st and 2nd year | 90% |

# IV. Results
# C. Six month Follow-Up

| | % Strongly Agreed/Agreed |
|---|---|
| I have an increased awareness of medical errors | 86% |
| Videotaping increased my awareness of effective communication skills | 79% |
| I have been more aware of patient safety since my FM Clerkship | 67% |

# IV. Results
## D. AAMC Graduation Questionnaire

New set of questions on interviewing added to the 2001 Questionnaire: answered by 4th years nationally

"I am confident that I have appropriate knowledge and skills to discuss a prescription error I made with the patient."

# IV. Results
## D. AAMC Graduation Questionnaire

| | NYMC | National |
|---|---|---|
| 2001 | 2.1 | 1.9 |
| 2002 | 1.7 | 1.9 |
| 2003 | 1.8 | 1.9 |

1 = Strongly Agree

5 = Strongly Disagree

# V. Discussion
## A. Results

- Brief required curriculum introduced & sustained.
- Raised student awareness in immediate post-intervention period.
- Highly rated by students.
- Possibly increased student confidence in error disclosure.

# V. Discussion
# B: Our Recommendations

**Our Proposed Strategy to Improve Patient Safety Education**

- Must make a strong case for the need for change in education
- Must incorporate experiential teaching rather than didactics and readings
- Must bridge gap between the educational systems and the hospital /institutional systems.
- Must build faculty champions
- Must develop collaborative initiatives with other healthcare professions

# For more information:

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