Assessing the Value of an Expanded Clinical Genetics Curriculum for Medical Students


*University of Massachusetts Medical School*
Background

- Genetics curriculum in the pre-clinical years.
- Rapid changes in genetic technology.
- The ethical, legal, and social consequences of providing this new technology must be addressed.
- UMass attempt: incorporate the potential impact of the expanding genetic technology into first and third year medical school curriculum.
Curriculum Intervention

- An expanded genetics curriculum with an enhanced clinical focus for first year medical students was started in 1995.

- The addition includes:
  - Patient and family interviews,
  - Small group discussions,
  - Psychosocial and ethical case presentations,
  - Role play, and letter-writing exercises to families with hereditary cancer syndromes.
Curriculum Intervention (Cont.)

- In 2000, a complementary program, was added as a two-day interclerkship.

- The program was attended by approximately 50-60% of the third year students.
The interclerkship includes:

- Students lectures and panel discussions on genetic technology.
- Dramatic simulations on the impact of genetic technology on society.
- Small group interviews of patients and families.
- Small group case discussions emphasizing ethical dilemmas in genetics.
- Field trip to biotechnology company.
Purpose of the Study

- To evaluate students’ responses to the expanded clinical genetics curriculum.
Method

- Ratings of the amount of genetics instruction time, as reported in the AAMC graduation questionnaire (GQ), were compiled.
- Data across **four consecutive graduating classes** of medical students were obtained.
- Proportions of “appropriate” ratings of the four cohorts were compared.
- The results were also compared to the
Ratings of Instruction Time in Genetic Counseling

Year | Inadequate | Appropriate | Excessive
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1998 | 48 | 52 | 75
1999 | 25 | 75 | 79
2000 | 21 | 79 | 93
2001 | 7 | 93 |
Ratings of Instruction Time in Genetic Counseling

UMass Medical School

98 vs. 99: Z=3.38; p=.00
00 vs. 01: Z=2.03; p=.04
Ratings of Instruction Time in Genetic Counseling

![Bar chart showing the percent of "Appropriate" ratings from 1998 to 2001 for UMass and All Schools compared to National Data.](chart.png)
Conclusions

- There is evidence of the importance of a clinical emphasis early on in the genetics curriculum, followed by a 3rd year refresher program.

- Such “longitudinal” curricular interventions can be successful in promoting an enhanced educational experience.