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

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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.
Curriculum Intervention (Cont.)

- 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

UMass Medical School

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<th>Year</th>
<th>Inadequate</th>
<th>Appropriate</th>
<th>Excessive</th>
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<tr>
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<td>48</td>
<td>52</td>
<td></td>
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<tr>
<td>1999</td>
<td>25</td>
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<td>2001</td>
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</tbody>
</table>
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

National Data

Percent of "Appropriate" Rating:

- 1998: UMass 52, All Schools 53
- 1999: UMass 75, All Schools 55
- 2000: UMass 79, All Schools 58
- 2001: UMass 93, All Schools 61
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.