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.
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.
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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<tbody>
<tr>
<td>1998</td>
<td>48%</td>
<td>52%</td>
<td></td>
</tr>
<tr>
<td>1999</td>
<td></td>
<td>75%</td>
<td></td>
</tr>
<tr>
<td>2000</td>
<td></td>
<td>79%</td>
<td></td>
</tr>
<tr>
<td>2001</td>
<td></td>
<td></td>
<td>93%</td>
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</table>
Ratings of Instruction Time in Genetic Counseling

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

Percent of "Appropriate" Rating:

<table>
<thead>
<tr>
<th>Year</th>
<th>UMass</th>
<th>All Schools</th>
</tr>
</thead>
<tbody>
<tr>
<td>1998</td>
<td>52</td>
<td>53</td>
</tr>
<tr>
<td>1999</td>
<td>75</td>
<td>55</td>
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<tr>
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<tr>
<td>2001</td>
<td>93</td>
<td>61</td>
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</tbody>
</table>

National Data
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.