Performance Outcomes for Students in a Rural Immersion Experience
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Rural Opportunities in Medical Education (ROME) A 28-week interdisciplinary, continuity experience in a rural primary care setting, available to MS3 students at the UNDSM&HS

Program Goals:
- Provide the student with a comprehensive, broad-based primary care medical education.
- Provide the student an opportunity to experience the lifestyle of rural health care providers.
- Learn assessment, management, and barriers to care commonly encountered in primary care.
- Primary preceptors are board-certified in family medicine, with support from board-certified surgeons and other specialists in the community.
- Seven months rural, five months in a traditional campus clinical setting (Figure 1).

ROME Students MS3

<table>
<thead>
<tr>
<th>Tradition</th>
<th>ROME</th>
</tr>
</thead>
<tbody>
<tr>
<td>Full credit for Family Medicine &amp; Surgery</td>
<td>Half credit for Family Medicine &amp; Surgery</td>
</tr>
</tbody>
</table>

Traditional Students: 6 rotations MS3

<table>
<thead>
<tr>
<th>Tradition</th>
<th>ROME</th>
</tr>
</thead>
<tbody>
<tr>
<td>Internal Medicine</td>
<td>Surgery</td>
</tr>
<tr>
<td>Pediatrics</td>
<td>OB/Gyn</td>
</tr>
</tbody>
</table>

Research Design

- Multi-group design: 3rd year medical school classes from 1998 to 2003 (338 traditional clerkships, 35 in ROME program)
- Performance outcomes variable: NBME Step II scores for third-year medical students
- NBME shelf exams in the following areas:
  - Pediatrics
  - Internal Medicine
  - Surgery
  - Obstetrics and Gynecology

Variables to control for academic achievement/ability prior to entering the third year experience:
- MCAT scores
- NBME Step I scores

Summary of Research Findings

- Average NBME Step II scores for traditional students: 212.5
- Average NBME Step II scores for ROME students: 215.0
- t-test analysis shows no statistically significant difference.

ROME students had higher average NBME shelf exam scores than traditional students in surgery, internal medicine, and obstetrics and gynecology.

- t-test analysis shows no statistically significant difference between the two groups of students.

Average MCAT score* for traditional students: 27.2
Average MCAT score for ROME students: 27.0
- t-test analysis shows no statistically significant difference.

Average NBME Step I score** for traditional students: 210.7
Average NBME Step I score for ROME students: 211.7
- t-test analysis shows no statistically significant difference.

Mean scores sorted by ROME/Traditional

<table>
<thead>
<tr>
<th>Subject</th>
<th>ROME</th>
<th>Traditional</th>
</tr>
</thead>
<tbody>
<tr>
<td>MCAT</td>
<td>27.0</td>
<td>27.2</td>
</tr>
<tr>
<td>NBME Step I</td>
<td>211.7</td>
<td>210.7</td>
</tr>
<tr>
<td>Shelf Exam</td>
<td></td>
<td></td>
</tr>
<tr>
<td>OB Shelf</td>
<td>71.5</td>
<td>71.0</td>
</tr>
<tr>
<td>Surg Shelf</td>
<td>70.6</td>
<td>71.3</td>
</tr>
<tr>
<td>M Shelf</td>
<td>69.0</td>
<td>70.0</td>
</tr>
<tr>
<td>Step 1</td>
<td>214.0</td>
<td>215.0</td>
</tr>
<tr>
<td>Step 2</td>
<td>220.0</td>
<td>220.0</td>
</tr>
</tbody>
</table>

General comments about the ROME experience:
- “Independence was a strength that translated well into my intern year...”
- “...in my opinion, standardized testing has likely the most to do with the amount of independent study done and how well you are at making and helping to understand your transition into the role of a physician...”
- “...Now with my internal medicine residency completed, I realize the importance of the internship in a rural community. They function as consultants in many subspecialty areas that would otherwise be consults in larger medical settings.”

Comments about exams:
- “...”

Conclusion

Students who take part in a rural immersion program perform as well in examinations as those students in a traditional clerkship program.