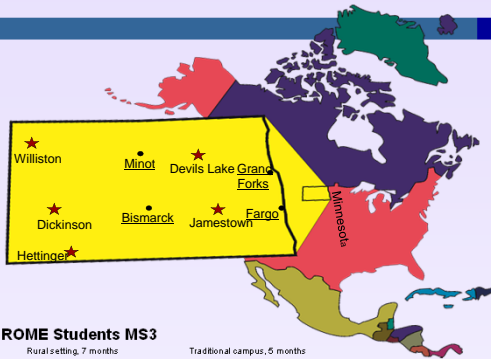


Performance Outcomes for Students in a Rural Immersion Experience

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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

Rural setting, 7 months
 Traditional campus, 5 months
 Full credit for Family Medicine & Surgery;
 Half credit: IM, Peds, OB/Gyn, Neuro science

Traditional Students: 6 rotations MS3

Internal Medicine, Pediatrics, Surgery, Obstetrics Gynecology, Family Medicine, Neuro science

Research Design

Study group: students in five medical school classes from 1999 to 2003 (288 traditional third-year clerkships, 35 in ROME program).
 Performance outcomes variable: USMLE 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
 NBME Step I scores

Summary of Research Findings

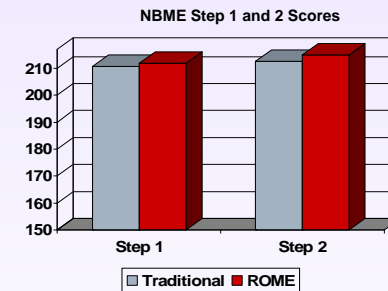
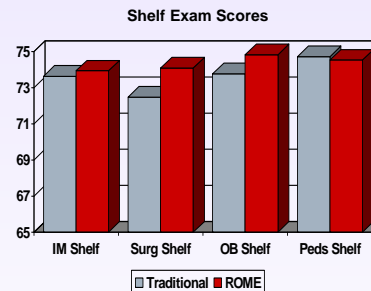
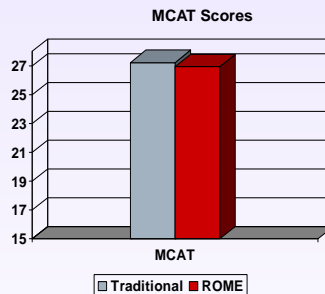
Average NBME Step II scores for traditional students: 212.5
 Average NBME Step II scores for ROME students: 215.0
 *t-test analysis shows no statistically significant difference.

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 differences between the two groups of students.

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

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

*MCAT scores used in the study were calculated by adding the physical science, biological science and verbal components.
 **first time NBME STEP I exam takers prior to third year clerkship.



Mean scores sorted by ROME/Traditional

Status	MCAT	Step 1	IM Shelf	Surg Shelf	OB Shelf	Peds Shelf	Step 2	
Traditional	Mean	27.23	210.66	73.63	72.49	73.77	74.72	212.53
	N	287	287	285	283	288	288	240
	sd	3.47	22.42	8.00	8.08	7.63	7.51	22.34
	Minimum	17	146	59	45	54	59	143
	Maximum	38	266	98	99	99	99	262
ROME	Mean	26.94	211.74	73.94	74.09	74.83	74.54	214.96
	N	35	35	35	35	35	35	28
	sd	2.62	20.18	7.26	6.12	6.41	6.65	21.62
	Minimum	20	163	61	61	62	62	173
	Maximum	32	248	89	85	89	89	261
Total	Mean	27.20	210.78	73.66	72.66	73.88	74.70	212.79
	N	322	322	320	318	323	323	268
	sd	3.38	22.16	7.92	7.90	7.51	7.41	22.24
	Minimum	17	146	59	45	54	59	143
	Maximum	38	266	98	99	99	99	262

General comments about the ROME experience:

"...Independence was a strength that translated well into my intern year. The one-on-one interactions with attending/supervising MD's was a strength. The OB portion was quite good, in that we were able to follow patient on a longitudinal basis as well as be present when they delivered was quite helpful."

"...I would repeat the experience in a heartbeat with great enthusiasm."

"...Working directly with the attending (my first experience with working with residents was when I was a resident!), the number of patients I saw in the ambulatory setting has made that transition from residency (a lot of hospital work) to practice (not very much hospital work) very easy. I also liked the freedom I had to attend any procedure, delivery, surgery that I wanted through the days/nights/weekends, as I saw more things spontaneously. A lot of my experience is attributable to the people in Devils Lake (ROME site) as they were very supportive of the program."

"...Now with my internal medicine residency completed, I realize the importance of the internists in that rural community. They function as consultants in many subspecialty areas that would have subspecialty consults in larger medical settings."

Comments about exams:

"...In my opinion, standardized testing has likely the most to do with the amount of independent study done and how well you are at 'test taking.' On the other hand, independence with clinical decision making and helping to understand your transition into the role of a physician were significant benefits of the ROME program. I certainly do not think the ROME program was a detriment to my shelf and USMLE scores."

Conclusion

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