



Curriculum Design for Rural Programs

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It's all about the **place!**



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RTTC 2016

...and adopting an **organic** approach



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Place-based education

“A strategy that starts with place holds promise for a more organic, ecological and sustainable enterprise - medical education conceived, birthed, shaped and nourished in rural communities.”

Longenecker, *Rural Medical Education: Practical Strategies*, 2011



Participants will be able to:

- Articulate at least 3 principles for place-based education, and applying the rules of accreditation in a unique rural place
- Describe a number of current and proposed innovations, including:
 - Longitudinal integrated clerkships, and rural streams in other specialties,
 - Integration of telemedicine and tele-education,
 - Virtual rural grand rounds



Challenges and Opportunities

- What makes curricular design for a rural place challenging?
- What opportunities do these challenges present?



Challenge

- Inexperience

Opportunity

- Learning together; teaching each other – even the mind of a novice
- Active experimentation



Challenge

- Low volume of cases

Opportunity

- Longitudinal curricula
- Expanded scope of rotation
- Rolling jeopardy and home call (“capture the learning”)

[Resident - Month Year]

Hospital Care

Duty hours begin at 0630

Revised 11-9-2010

	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
Week 1							
6:30 AM Hospital Rds. Mon-Sat.*		MRH	MRH	MRH	MRH	MRH	MRH
AM						MRFP	
Noon		Teaching Rds	Peds Teaching Rds	Residency Conf.	Clinical Jazz	Staff Mtg	
PM			Emerg. Med.** 6 hours	MRFP	1:30-2:30 CL Time		

Week 2							
6:30 AM Hospital Rds. Mon-Sat.*		MRH	MRH	MRH	MRH	MRH	MRH
AM						MRFP	Emerg. Med. 16 hours total
Noon		Teaching Rds		Residency Conf.	Clinical Jazz	MedNet	
PM			Emerg. Med.** 6-10 hours	MRFP	1:30-2:30 CL Time		

Week 3							
6:30 AM Hospital Rds. Mon-Sat.*		MRH	MRH	MRH	MRH	MRH	MRH
AM						MRFP	
Noon		Teaching Rds		Rural Grand Rounds	Clinical Jazz	MedNet	
PM			Emerg. Med.** 6-10 hours	MRFP	1:30-2:30 CL Time		

Week 4							
6:30 AM Hospital Rds. Mon-Sat.*		MRH	MRH	MRH	MRH	MRH	MRH
AM						MRFP	
Noon		Teaching Rds	OB Teaching Rds	Practice Management		Prac Mtg	
PM			Emerg. Med.** 6 hours	MRFP	1:30-2:30 CL Time		

*Morning Report @ 7:15

**Scheduling hours, even the scheduled day, is somewhat flexible; encouraged to go home by 8:30 PM, must be off duty by 10:30 PM



Challenge

- Few faculty

Opportunity

- Expanded scope of practice
- Continuity of relationship



Challenge

- Small number of learners

Opportunity

- Interprofessional education
- Apprenticeship; individualized education
- Field trips
- Faculty keep up their skills



Challenge

- Distance

Opportunity

- Autonomy
- Telemedicine and tele-education
- Travel



Place-based education

- Starts with a rural place and its assets
- Uses various models, options for program design, modified rather than imposed upon the local context (organic medical education)



Place-based education

- Follows a developmental process that is community engaged, i.e. Community Engaged Medical Education (CEME)
CERE-R: CEResidencyE for Rural Places
- The intention is not to circumvent the rules of accreditation, but to know them so well that you will be able to creatively adapt them to the rural context

The OSU Rural Program – Three Year Curriculum
Intensive immersion experiences embedded in a continuing rural practice

1	2	3	4	5	6	7	8	9	10	11	12	13
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YEAR 1

Hospital Care (Shared)	Hospital Care	Pediatrics Inpatient	Hospital Care (NRP)	Special Care Nursery	OB – Newborn	Hospital Care	Cardiology	Hospital Care (Wound Healing)	MICU	Hospital Care
MRH	MRH	CHC	MRH	OSUH	MRH	MRH	OSUH	MRH	MRH	MRH
Mad River Family Practice -- Periodic office patient care, daily hospital rounds and Community Medicine										
2 Half-days	2 Half-days	1 Half-day	2 Half-days	1 Half-day	2 Half-days	1 Half-day	2 Half-days	1 Half-day	2 Half-days	1 Half-day

YEAR 2

Ambulatory Cardiology	Elective	OB - Newborn	OB – Newborn (High Risk)	OB – Newborn (Low Risk)	OB – Newborn (High Risk)	OB – Newborn (Low Risk)	Medical Sub - specialty	Elective	GYN
MRH/Office							MRH/Office	MRH/Office	Office
Mad River Family Practice -- Periodic office patient care, daily hospital rounds and Community Medicine									
0-4 Half-days	8 Half-days one week None the next	4 half-days	4 Half-days	0-4 Half-days	3 Half-days				

OB – Newborn (High Risk)	OB – Newborn (Low Risk)	GYN	Elective	Surgical Subspecialties – Ophthalmology, ENT, Urology, Podiatry	Elective	Sports Medicine	Elective	Medical Sub - specialty
Office	Office	Office		Office		OSU Sports Ctr		MRH/Office
Mad River Family Practice -- Periodic office patient care, daily hospital rounds Practice Management and Community Intervention								
0-4 Half-days	5 Office Half-days	4 Half-days	0-4 Half-days	5 Office Half-days	0-4 Half-days	4 Half-days	0-4 Half-days	0-4 Half-days

[Gray shaded rotations occur at least in part in Columbus, Ohio]

“Intensive immersion experiences embedded in a continuing rural practice”

The OSU Rural Program – Three Year Curriculum
Intensive immersion experiences embedded in a continuing rural practice

1	2	3	4	5	6	7	8	9	10	11	12	13
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YEAR 1

Hospital Care (Shared)	Hospital Care	Pediatrics Inpatient	Hospital Care (NRP)	Special Care Nursery	OB – Newborn	Hospital Care	Cardiology	Hospital Care (Wound Healing)	MICU	Hospital Care (ATLS)	Peds ER	Scholarly Activity (Shared)
MRH	MRH	CHC	MRH	OSUH	MRH	MRH	OSUH	MRH	OSUH	MRH	CHC	MRH
Mad River Family Practice -- Periodic office patient care, daily hospital rounds												
2 Half-days	2 Half-days	1 Half-day	2 Half-days	1 Half-day	2 Half-days	1 Half-day		2 Half-days	1 Half-day	2 Half-days	1 Half-day	3 Half-days

YEAR 2

Ambulatory Cardiology	Elective	OB - Newborn	OB – Newborn (High Risk Immersion)	Dermatology	Pediatrics Outpatient	ICU – Intern Med	Orthopedics	Medical Sub - specialty	Elective	GYN
MRH/Office		MRH	MRH	Office	Office	MRH	MRH/Office	MRH/Office		Office
Mad River Family Practice -- Periodic office patient care, daily hospital rounds										
Scholarly Activity and Community Medicine										
4 Office Half-days	0-4 Half-days	2 Half-days	2 Half-days	4 Half-days	2 Half-days	8 Half-days one week None the next	4 half-days	4 Half-days	0-4 Half-days	3 Half-days

YEAR 3

Elective	Geriatrics, Physical Medicine, and Psychiatry	GYN	Elective	Surgical Subspecialties – Ophthalmology, ENT, Urology, Podiatry	Elective	Sports Medicine	Elective	Medical Sub - specialty
	Office	Office		Office		OSU Sports Ctr		MRH/Office
Mad River Family Practice -- Periodic office patient care, daily hospital rounds								
Practice Management and Community Intervention								
0-4 Half-days	5 Office Half-days	4 Half-days	0-4 Half-days	5 Office Half-days	0-4 Half-days	4 Half-days	0-4 Half-days	0-4 Half-days

[Gray shaded rotations occur at least in part in Columbus, Ohio]



Methods

- Emergent curricular strategies
- Longitudinal design
- Tele-education



Methods – Emergent Curricula

- Self-organizing
- Experiential education: The “curriculum walks through the door”
- Examples:
 - BlackBoard with students in Australia
 - Clinical Jazz
- Key is documentation





Minimal structure

- Jotter draws a case in context and tells the story
- The group then explores the case and clarifies the question,
- reframes the question into a useful one,
- interacts around it, and in the end
- comes up with an actionable clinical pearl, specific to the jotter's question, and then, generalizable to practice



Opening



Describe
the Case

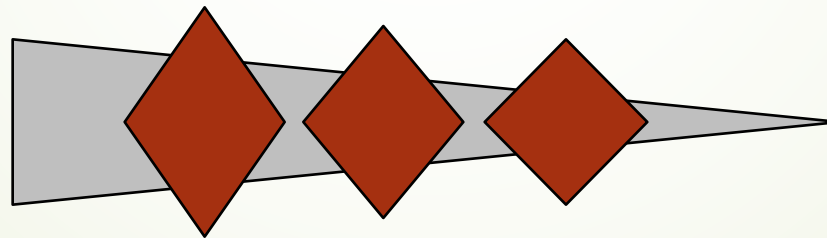
Pose a
Question

Explore
the Case

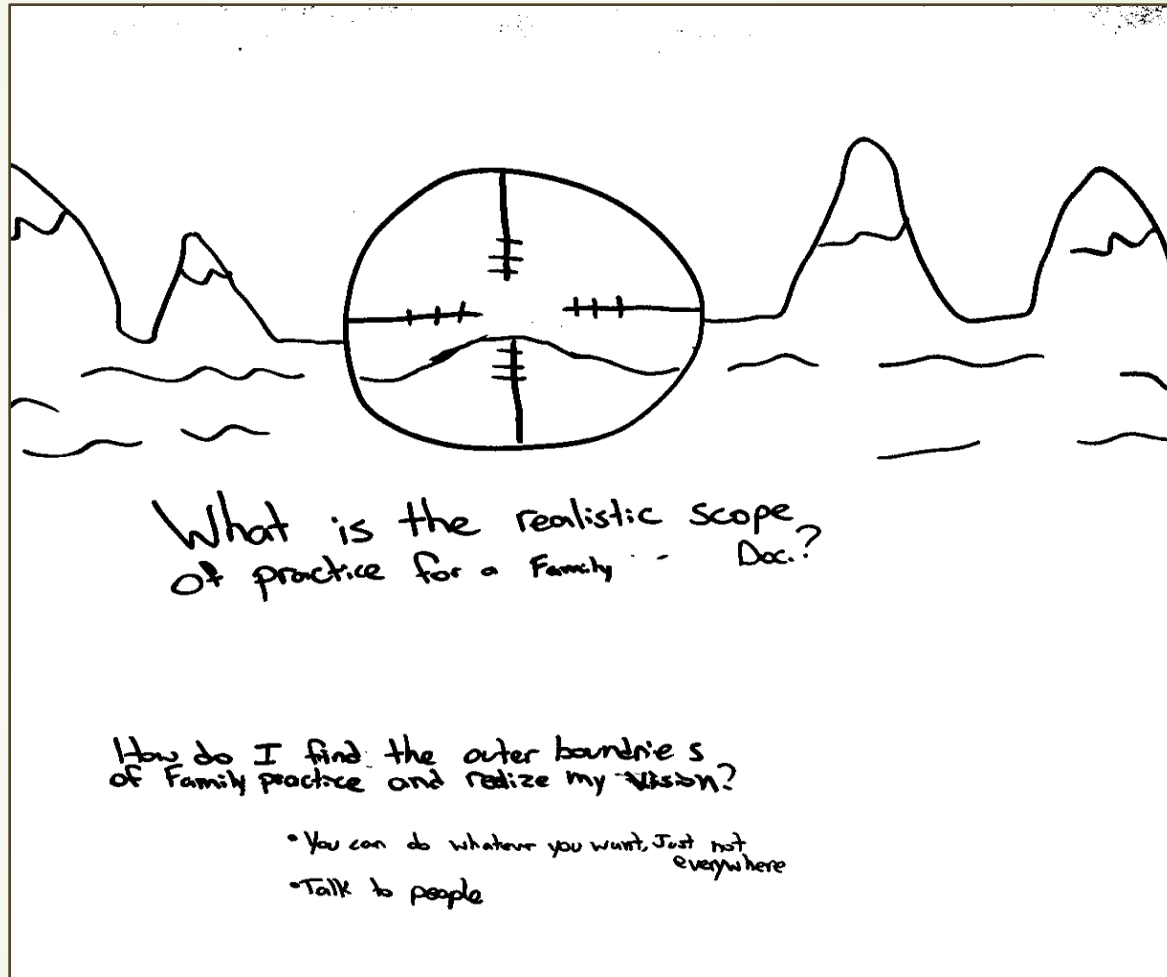
Divergent thinking;
Open-ended questions

Closing

"The Action Turn"



Convergent thinking;
"What if" and "How"
questions; Solution
statements



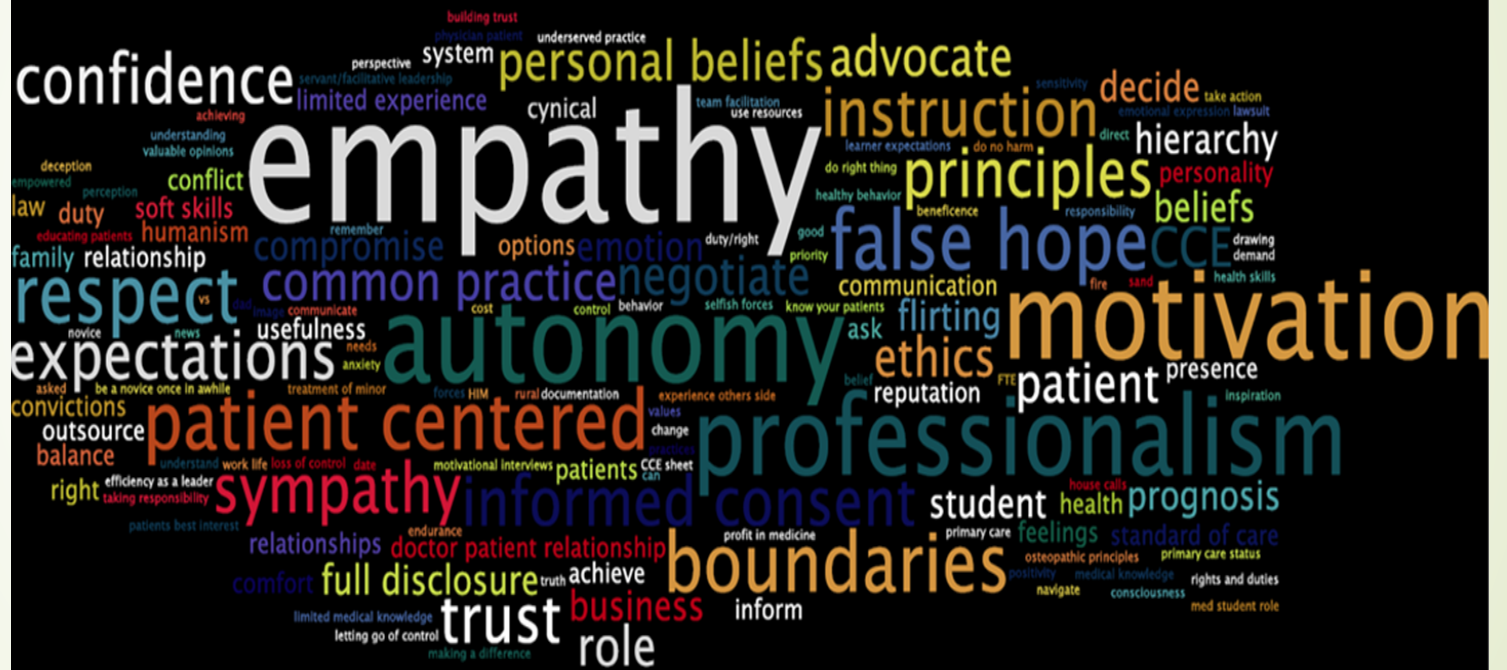


Keywords



A word cloud of keywords related to primary care and reputation. The words are arranged in a cluster, with 'reputation' and 'primary care' being the largest and most prominent. Other words include 'specialty choice', 'watch what you say', 'choose words wisely', 'image', 'motivational interviews', 'perspective', 'perception', 'professional identity', 'respect', and 'primary care status'.

specialty choice
watch what you say
choose words wisely image
motivational interviews
reputation
perspective
perception
primary care
professional identity respect
primary care status



confidence personal beliefs advocate
instruction decide take action
hierarchy personality beliefs
principles responsibility health skills
hope CCE demand
motivation presence inspiration
patient reputation FTE
professionalism
consent student health prognosis
boundaries primary care feelings standard of care
disclosure truth achieve business inform
trust role
sympathy informed consent
patient centered
autonomy
respect expectations
conflict soft skills humanism
family relationship compromise options emotion negotiate communication ask flirting ethics
law duty educating patients remember common practice cost control behavior selfish forces know your patients belief reputation
deception empowered perception understanding valuable opinions achieving limited experience perspective system underserved practice building trust physician patient servant/facilitative leadership cynical team facilitation use resources learner expectations do no harm do right thing healthy behavior beneficence
novice news vs did image communicate usefulness needs anxiety treatment of minor forces HIM rural documentation experience others side values change
outsourcing balance right efficiency as a leader taking responsibility patients best interest understand work life loss of control date motivational interviews patients CCE sheet
convictions be a novice once in awhile asked
relationships doctor patient relationship endurance profit in medicine osteopathic principles primary care status
comfort full disclosure limited medical knowledge letting go of control making a difference



Methods – Longitudinal Design

- Clinical Longitudinal Integrated Clerkship
 - Students meet curricular requirements longitudinally, rather than in separate blocks
 - Students are attached over time to a continuing preceptor, in the same place, either continuously, or intermittently
- Examples: Minnesota RPAP, Montana TRUST, “Mini-LIC,” RTT’s



Methods – Distance Education

- Weekly didactics
- Virtual Grand Rounds
- Telemedicine married to tele-education, ECHO Style (an expert on both ends of the connection), e.g. as proposed in Sulphur Springs, TX



Methods – Distance Education

“A unique aspect of the year two/three curriculum is the subspecialty education in neurology, endocrinology, pulmonology and psychiatry (NEPP).

Each block (4 weeks)...provides six full days of neurology, four days of endocrinology, two days of pulmonology and two full days of psychiatry. Residents have two NEPP blocks in year two and three blocks in year three.”

Leslie M. Tingle MD, Developing RTT, Sulphur Springs, TX



Methods – Distance Education

“Each week, three of the seven specialty clinic half days are conducted in the telemedicine format and four are traditional live clinic consultations with the preceptors on-site. MSCSS physicians also provide after-hours telemedicine consultations for our hospital patients, including those in the ICU.”

Leslie M. Tingle MD, Developing RTT, Sulphur Springs, TX



Summary

My intent in taking this approach is to develop and implement a plan that is:

- rooted in the fertile soil of rural practice and embedded in rural communities,
- deliberately designed to grow through the course of medical school and residency, and
- nurtured through “drip irrigation” and ongoing attention to the rural learning environment and the informal, as well as the formal, curriculum.



Discussion

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References

- Longenecker R. "Curricular Design: A Place-Based Strategy for Rural Medical Education," in Bell E; Zimmitat C; Merritt J Eds. Rural Medical Education: Practical Strategies, New York: Nova Science, 2011.
- Strasser R; Worley P; Cristobal F; Marsh DC; Berry S; Strasser S; Ellaway R. "Putting Communities in the Driver's Seat: The Realities of Community-Engaged Medical Education," Academic Medicine 2015 Nov;90(11):1466-70.
- Community Engaged Residency Education for Rural Places (CERE-R)
<http://rttcollaborative.net/wp-content/uploads/2015/11/CERE-R-11-6-2015.pdf>

