Building a Scholarly Research Program for Rural and Remote Family Medicine Faculty

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Photo Credit: NL Dept. Tourism
We DO NOT have an affiliation (financial or otherwise) with a pharmaceutical, medical device, or communications organization.
After this presentation, participants will be able to:

- Identify barriers, enablers, and ascribed needs of rural and remote faculty that impact engagement in research
- Describe the 6 for 6 Program
- Share research findings that led to the development of the 6 for 6 Program, progress to date, and next steps
What is your research idea?

Write it on the paper provided

When instructed, tape your idea to the wall
Faculty development program identified key areas for skill building – led to a focus on writing for publication

Began a focus on rural and remote faculty

Launched a 15 month research skills program for physicians from various rural and remote regions
  - NL; NB; NU

Year 2 now halfway
  - Year 3 recruitment starting; Open to royal college specialists
Regions Represented to Date

Legend
Participant Locations
- Green: Year 1
- Blue: Year 2
- Red: Year 1 & 2
Program Goal

- Develop, implement and evaluate a longitudinal faculty development program that promotes research skills and knowledge translation for rural and remote family medicine faculty
Methods

- Mixed-methods, multiphase project
- Purposeful and snowball sampling
- Iterative design

<table>
<thead>
<tr>
<th>Phases of the Program</th>
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</thead>
<tbody>
<tr>
<td><strong>Phase I (Needs assessment)</strong></td>
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<tr>
<td>(i) Identifying priority research skills</td>
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<tr>
<td>(ii) Identifying knowledge translation process</td>
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<tr>
<td><strong>Phase II (Curriculum)</strong></td>
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<tr>
<td>(i) Curriculum design</td>
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<td>(ii) Curriculum development</td>
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<tr>
<td>(iii) Curriculum implementation</td>
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<tr>
<td><strong>Phase III (Evaluation)</strong></td>
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<tr>
<td>(i) Program evaluation</td>
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</table>
Identifying Priority Research Skills

Panel of Experts
- New Researcher
- Experienced Researcher
- Family Physician
- Epidemiologist
- Education Expert
- Directors of Faculty Development & Research

Existing knowledge from 1950 to 2013

Stakeholders
- Policy makers
- Decision makers
- Distributed teachers

Rural Family Physicians

Systematic Literature Review
- Environmental Scan

Key Informant Interviews

Surveys
- Focus Group
Curriculum Development Plan

**Step 1**
Identify problem & general needs assessment
(General NA = Ideal Approach – Current Approach)
• Executive advisory committee

**Step 2**
Targeted needs assessment
• Literature review
• Environmental scan
  • Focus group
• Key informants (pan Canada)
• Needs assessment surveys
• Strategic planning session

**Step 3**
Goals & objectives
• Feedback gathered
• Program planning committee

**Step 4**
Educational strategies

**Step 5**
Implementation
• Introduce curriculum
• Administer curriculum
• Address barriers to implementation

**Step 6**
Evaluation & feedback
• Program evaluation surveys
  • Session surveys
• Feedback from mentors, RA, facilitators, etc.

Comparison of Barriers Reported by Urban & Rural/Remote Faculty

- Lack of Time
- Isolated
- Lack of Access
- Lack of Support
- Lack of Skill
- Lack/ Loss of Resources

Common to rural/urban faculty
Unique to rural faculty
Strategies to Address Barriers

- Lack of Time
- Isolated
  - Face to face meeting
  - Local “Hubs”
  - retreats consultations
- Lack of access
  - Asynchronous & Synchronous Learning
  - Audio/video Modules
  - Effective means of Delivery
  - Prompts for on-line postings/learning modules
- Lack of Skill
- Lack/loss of Resources
  - Funding – research assistant, hire student; remuneration
  - Up to date list of resources
  - Liaisons with librarians and research assistant in main centers

Common to rural/urban faculty
Unique to rural faculty

*Results from FGD (n=15)
# Needs Assessment Findings

**Importance of Curriculum Topics in Developing a Research Program as Rated by Program Participants (n=6)**

<table>
<thead>
<tr>
<th>Topics</th>
<th>Mean Importance Score (out of 8) (SD)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Research Planning &amp; Design</td>
<td>6.00 (3.16)</td>
</tr>
<tr>
<td>Data Analysis</td>
<td>5.50 (1.64)</td>
</tr>
<tr>
<td>Research Dissemination</td>
<td>5.33 (1.37)</td>
</tr>
<tr>
<td>Ethics Approval</td>
<td>5.00 (3.10)</td>
</tr>
<tr>
<td>Data Collection</td>
<td>4.60 (2.07)</td>
</tr>
<tr>
<td>Finding Relevant Literature</td>
<td>4.33 (2.34)</td>
</tr>
<tr>
<td>Scholarly Writing</td>
<td>4.33 (1.63)</td>
</tr>
<tr>
<td>Sources of Funding</td>
<td>3.50 (3.27)</td>
</tr>
</tbody>
</table>
Additional Needs Assessment Findings from Program Participants

**Scheduling**
- Weekends preferred for face-to-face meetings

**Time**
- Lack of time identified as potential challenge to participating in program

**Resources/Support**
- Resources required for coordination of research networks
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Program Framework & Curriculum

- **Blended learning model**
  - Didactic learning
  - Web-based and mobile learning
  - Case-based learning
  - Audio and video podcasts

- **Synchronous and asynchronous learning methods**
  - 6 structured, face-to-face sessions
  - Self-paced eLearning activities

- **Curriculum**
  - Knowledge- and skill-building
  - E.g., scholarly writing, research planning, data collection, analysis
  - Development of research networks

- **Built-in dedicated time to work on research project**
Program Infrastructure

- Research assistant
- Mentor
- Costs
- Venue
- Collaboration with support services
<table>
<thead>
<tr>
<th>Session</th>
<th>Curriculum Topics</th>
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<tr>
<td>Session 1</td>
<td>Overview of Research Methods; Overview of Library Services</td>
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<tr>
<td>Session 2</td>
<td>Formulating Research Questions; Building a Team</td>
</tr>
<tr>
<td>Session 3</td>
<td>Literature Search; Qualitative Methods &amp; Analysis</td>
</tr>
<tr>
<td>Session 4</td>
<td>Process of Seeking Ethics Approval; Quantitative Methods &amp; Analysis; Mixed Methods</td>
</tr>
<tr>
<td>Session 5</td>
<td>Applying for Research Funding; Scholarly Writing; Dissemination</td>
</tr>
<tr>
<td>Session 6</td>
<td>Project Presentations; Lessons Learned</td>
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6 for 6 Program Timeline
(15 months duration)

Session #1 (April)
- Establish goals
- Expected timeline
- Overview of scholarly research & methodologies
- Library support services
- Meet with mentors & other supports

Key Objectives
Leave with a research idea & understanding of how project may be designed

Session #2 (June)
- Research questions
- Building a team
- Meet with mentor & other supports

Key Objectives
Gain understanding of how to formulate a research question & build a team

Session #3 (Sept.)
- Literature search
- Qualitative research methods & analysis
- Meet with mentors & other supports

Key Objectives
Understand the process of conducting a literature search & be familiar with qualitative research methods

Session #4 (Nov.)
- Quantitative research methods & analysis
- Mixed-methods
- Ethics
- Meet with mentors & other supports

Key Objectives
Be familiar with the process of applying for ethics approval, quantitative research & mixed methods

Session #5 (Feb.)
- Applying for funding
- Prepare for proposal writing
- Scholarly writing
- Dissemination
- Meet with mentors & other supports

Key Objectives
Know what funding options are available, develop writing skills & explore options for dissemination

Session #6 (April)
- Project presentations
- Lessons learned
- Year 1 evaluation
- Year 2 begin program
- Meet with mentors & other supports

Objectives
Knowledge transfer between groups & presentation of research proposal

Mentor Meeting
- Meeting for mentors
- Plan for engagement in 6 for 6 program and discussion of key skills important for mentoring participants

Timeline:
Projects Underway

Individual Research Project Topics as Developed by Program Participants (n=6)

- Healthy aging care in Port aux Basques, NL
- Tuberculosis care in Labrador
- Implementation needs for antimicrobial stewardship programs
- Distributed academic teaching in rural residency programs
- Aeromedical evacuation in Labrador
- Rural recruitment/retention of family physicians
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Case Study Activity

(Photo credit: NL Dept. Tourism)
Case Studies: Research in Action

- There are always speedbumps in research
- Rural and remote research can present unique challenges to which there are no perfect solutions
- Form small breakout groups
- Discuss the cases provided amongst your group
Case Studies

- Dean does not share your vision, revokes funding
- Ineffective marketing, no applicants
- Participant to graduate with unfinished project
- Maintaining participants’ momentum after program
Next Steps

- Recruit for year 3
  - Royal College specialists
  - New Brunswick participant

- Complete year 2
  - 3 more sessions remain

- Alumni mentorship and institute

- Publish articles on:
  - Impetus for 6for6 (FaMPub)
  - Evaluation phase
Cool Down Activity
Cool Down Activity

- Reclaim your post-it from the warm-up activity

- What could you do tomorrow to move your research idea forward?
Questions or comments?
Research Networking

- Form break-out groups by province
- What barriers to research engagement are most prominent in your province?
- How could your group members collaborate to mitigate one of these barriers?
References


