Student Choice of Family Medicine: What do Fourth-Year Medical Students Say About It?

Ashley Bentley, MBA
Christina Kelly, MD, FAAFP

Objectives

- Determine what residency programs can additionally do to increase medical students’ choice of family medicine
- Implement changes in a medical student's rotation experience at residency programs based on the survey data reviewed during the session
- Influence future research on the student choice of family medicine
Background: Medical Students in the U.S.

- **105,663** in the U.S.
- Training at **145** allopathic medical schools
  And **33** osteopathic medical schools
- Plus regional campuses
- **31,900** are AAFP members (30%)
- **2,075** chose family medicine last year (NRMP and AOA matches)

Need for Primary Care Physicians

- Family medicine has been the **most highly recruited** medical specialty since 2006
  – Followed by general internal medicine
- Health care leaders call for **40% of the medical workforce** to be in primary care.
  – Currently around 32%
Need for Workforce Reform

- Projected primary care physician shortage: 
  - 33,000 by 2035
- Primary care physician production must increase 
  - 21%
- Residency slots need to grow 
  - 1,700-3,000

Residency programs can have an impact on FMIGs
FMIG Network Overview

- Established in 1995 to enhance communication and the exchange of best practices among FMIGs
- Across the country
- Led by seven medical students:
  - One elected National Coordinator
  - Five appointed Regional Coordinators
  - One Student Liaison to the Student National Medical Association
FMIG Network Mission Statement

• Encourage active learning and promotion of family medicine
• Improve communication
  – AAFP to/from campus FMIGs
  – Inbetween FMIGs
• Serve as a credible resource for FMIGs
  – programming, family physician resources, fundraising and FMIG administration
• Foster positive leadership skills and behaviors
  – FMIG student and faculty leaders

What we know through the FMIG Activity Survey
FMIG Members

- 39% of M1s and M2s participate in FMIG activities
- 14% of M3s and M4s do the same
- An average of 9.35 FMIG members Match to family medicine every year

Number of meetings held in 2014-15: 8.7
Meetings planned for 2015-16: 9.8
FMIG Annual Spending

- 29% of FMIGs spend less than $1,000 each year.
- 32% spend $1,001-1,500.
- 22% spend $1,501-2,500.
- 17% spend more than $2,500.

Funding Sources for FMIGs

Bars indicate percentage of FMIGs that reported receiving:

- FMIG funding initiative 78.50%
- Student affairs/student go 54.90%
- AAFP constituent chapter 47.90%
- FM department 47.20%
- Fundraising activities 13.20%
FMIG Leadership

• FMIG faculty advisors serve an average of 5 years (mean)
  – 30% attend all FMIG meetings/events
  – 45% attend most
  – 25% attend few or some

• Average FMIG has 6 students leaders, half of which are also leaders of other interest groups or student organizations

How FMIGs are Measuring Success

• Attendance at FMIG events (92%)
• FMIG membership (58%)
• Match rate into family medicine (56%)
• Continued interest in M3 and M4 years (50%)
• Evaluations or surveys (50%)
• Community service hours (16%)
• Fundraising (8%)
Where FMIGs Need Help

- Keeping M3s and M4s involved
- Finances
- Increasing membership/recruitment
- National conferences and leadership
- Dispelling myths about family medicine
- Current statistics on the specialty
- Incorporating community service

What research shows about FMIGs
What does PubMed say?

1. Family Medicine or Primary Care Residency Selection: Effects of Family Medicine Interest Groups, MD/PHD Dual Degrees, and Rural Medical Education
   - PMID: 25738040 Free Full-Text

2. Medical Student Participation in Family Medicine Department Undergraduate Experiences and Choosing to Become a Family Physician
   - Kolb A, Celine-Fonseca J, Events E, Overstreet R, Andris C, Dube S.
   - PMID: 25946252 Free Full-Text

3. FaMeS: an innovative longitudinal program to foster student interest in family medicine.
   - Wilkinson JE, Hoffman M, Pierce E, Wachter J.
   - PMID: 25906620 Free Full-Text

4. Cultivating interest in family medicine: family medicine interest group reaches undergraduates
   - Medical students
   - McLean ND, McQuade MA, Ramadan VR, Poole RE.
   - PMID: 28432976 Free Full-Text

SUNY Upstate
- 2006–2015, 1471 total students, 47 where FMIG leaders
- No significant impact on match to FM or PC

University of Washington
- 2000–2011, 1918 total students, 359 FMIG participants
- FMIG participation 2.45 OR to match to FM

Boston University
- 2005–2009 FaMeS Program (curricular, extracurricular elements, self-select)
- FM match rate before at after program launch, OR 1.94

Canada
- Qual study 2008, 45 students Toronto, different impact based on initial interest
- Undergraduate FMIG – they liked it

Interest Groups Overall
- Military service obligation, 2009, survey with response of 419/797
- 77% attended IG they matched to but rated perceived impact 3.6 (1-9 scale)
Context and Subjects

• This study retrospectively examined medical student data from one institution (n=1918)
• Time Frame: 2000-2011
• IRB: exempt
• Analyses were conducted in SPSS 16.0

Outcome Variable

• Residency match to family medicine

Predictors

• Initial FM interest (high, some/+FM, some/-FM, other)
• Programs – FMIG, RUOP, CHAP, Underserved Pathway

Covariates

• age, race/ethnicity, gender, rural upbringing
Family Medicine or Primary Care Residency Selection: Effects of Family Medicine Interest Groups, MD/MPH Dual Degrees, and Rural Medical Education.

Wei McIntosh E, Morley CP

**Context and Subjects**

- This study retrospectively examined anonymous medical student data from one institution
- Time Frame: 2006-2015
- IRB: exempt
- Analyses were conducted in SPSSS v.22.
McIntosh & Morley, 2016

**Outcome Variables**

- Residency match was coded into two binary (1,0) variables, representing matching with FM or any PC specialty.

**Predictors (DUMMY VARIABLES)**

- **FMIG** – Participation as an OFFICER (1/0)
- **RMED**
  - Any participation (yes/no)
  - Short (3-5 mnth) vs. Long (9 mnth) Experience (ordinal)
- **MD/MPH** – Graduated from both MD & MPH (1/0)

**Covariates**

- age >30, Race, Hispanic ethnicity, graduation year, gender

---

**Results**

<table>
<thead>
<tr>
<th>Participation by group</th>
<th># Participants (N)</th>
</tr>
</thead>
<tbody>
<tr>
<td>FMIG</td>
<td>47 (3.2%)</td>
</tr>
<tr>
<td>RMED</td>
<td>86 (5.8%)</td>
</tr>
<tr>
<td>Traditional (9 month)</td>
<td>66</td>
</tr>
<tr>
<td>Short course (3-4 months)</td>
<td>20</td>
</tr>
<tr>
<td>MD/MPH</td>
<td>9 (0.6%)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Participation in multiple programs</th>
<th># Participants</th>
</tr>
</thead>
<tbody>
<tr>
<td>FMIG + RMED</td>
<td>9 (0.6%)</td>
</tr>
<tr>
<td>RMED + MD/MPH</td>
<td>3 (0.2%)</td>
</tr>
<tr>
<td>FMIG + RMED + MD/MPH</td>
<td>1 (0.1%)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Specialty Match</th>
<th># Students (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Family Medicine</td>
<td>102 (6.9%)</td>
</tr>
<tr>
<td>Internal Medicine</td>
<td>264 (18.8%)</td>
</tr>
<tr>
<td>Internal Medicine/Pediatrics</td>
<td>13 (0.9%)</td>
</tr>
<tr>
<td>Pediatrics</td>
<td>165 (11.2%)</td>
</tr>
<tr>
<td>Any Primary Care</td>
<td>544 (37.0%)</td>
</tr>
</tbody>
</table>
### Results

**Bivariate Analysis ($\chi^2$)**

<table>
<thead>
<tr>
<th>Predictor</th>
<th>Family Medicine</th>
<th>Primary Care (Any)</th>
<th>Internal Medicine</th>
<th>Pediatrics</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>FMIG</td>
<td>Yes</td>
<td>6</td>
<td>41</td>
<td>NS</td>
</tr>
<tr>
<td></td>
<td>No</td>
<td>96</td>
<td>1328</td>
<td>NS</td>
</tr>
<tr>
<td>RMED</td>
<td>Yes</td>
<td>46</td>
<td>40</td>
<td>&lt;.001</td>
</tr>
<tr>
<td></td>
<td>No</td>
<td>56</td>
<td>1329</td>
<td>NS</td>
</tr>
<tr>
<td>MD/MPH</td>
<td>Yes</td>
<td>6</td>
<td>3</td>
<td>&lt;.001</td>
</tr>
<tr>
<td></td>
<td>No</td>
<td>96</td>
<td>1366</td>
<td>NS</td>
</tr>
</tbody>
</table>

What FMIG characteristics make a difference in student choice of Family Medicine?

How can family medicine residency programs make an impact?
<table>
<thead>
<tr>
<th>Variable</th>
<th>Corr (p)</th>
<th>N</th>
<th>Years of data</th>
<th>Years Significant</th>
</tr>
</thead>
<tbody>
<tr>
<td>AAFP Membership</td>
<td>.414 (.001)</td>
<td>143</td>
<td>1</td>
<td>2014</td>
</tr>
<tr>
<td>Advisor - # of Years Serving</td>
<td>.115 (.004)</td>
<td>627</td>
<td>5</td>
<td>2014, 2011</td>
</tr>
<tr>
<td>How many students hold FMIG leadership roles?</td>
<td>.231 (.001)</td>
<td>269</td>
<td>2</td>
<td>2015, 2014</td>
</tr>
<tr>
<td>How many meetings did the FMIG host in the past AY?</td>
<td>.176 (.001)</td>
<td>703</td>
<td>5</td>
<td>2015, 2012, 2011</td>
</tr>
<tr>
<td>How many meetings are planned for current AY?</td>
<td>.132 (.001)</td>
<td>710</td>
<td>5</td>
<td>2015, 2011</td>
</tr>
<tr>
<td>Approx. how many hours of community service did your FMIG do last year?</td>
<td>.177 (.003)</td>
<td>272</td>
<td>3</td>
<td>2012, 2011*</td>
</tr>
<tr>
<td>Number of M4s who are actively involved in your FMIG</td>
<td>.165 (.001)</td>
<td>635</td>
<td>5</td>
<td>2015, 2013, 2011</td>
</tr>
</tbody>
</table>

Small Group Discussion with report back to large group
Please…
Complete the session evaluation.
Thank you.