Mentoring Relationships in Medical Students interested in Vascular Surgery

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Disclosures

• Dr. Coleman and Dr. Jacobs have no disclosures.
Acknowledgements

• APDVS Recruitment Committee and the SVS Resident/Student Outreach Committee
  – Dr. Audra Duncan
  – Dr. Joseph Hart
Background and Objectives

• Mentoring is encouraged for medical students
• Effective mentoring influences match success\(^1\)
• What can be done better?
  – To get the best candidates into our specialty?
  – To promote effective mentoring from vascular surgeons for medical students interested in vascular surgery.

Methods

- In-house U of M Pilot Data
  - General, Vascular, and Cardiothoracic Residents.
- North American 0+5 Vascular Residents
  - Electronic survey (Qualtrics, Provo, UT)
  - Distributed by APDVS Recruitment Committee
- Data were analyzed with STATA
Pilot U of M Data

Response rate 65% (38/58)

<table>
<thead>
<tr>
<th>Program</th>
<th>Respondents</th>
<th>Percent Program</th>
<th>Percent Overall (n= 38)</th>
</tr>
</thead>
<tbody>
<tr>
<td>General Surgery</td>
<td>25</td>
<td>57% (25/44)</td>
<td>66.7%</td>
</tr>
<tr>
<td>Vascular Surgery</td>
<td>5</td>
<td>83% (5/6)</td>
<td>13.6%</td>
</tr>
<tr>
<td>Cardiothoracic Surgery</td>
<td>6</td>
<td>75% (6/8)</td>
<td>15.8%</td>
</tr>
</tbody>
</table>
### Did you have a mentor during medical school?

<table>
<thead>
<tr>
<th>Program</th>
<th>Percent</th>
<th>N=</th>
</tr>
</thead>
<tbody>
<tr>
<td>General Surgery Residents</td>
<td>92.3%</td>
<td>24</td>
</tr>
<tr>
<td>Cardiothoracic Residents (I6)</td>
<td>100%</td>
<td>6</td>
</tr>
<tr>
<td>Vascular Residents (0+5)</td>
<td>100%</td>
<td>4</td>
</tr>
</tbody>
</table>

### Mentor Specialty

<table>
<thead>
<tr>
<th>Program</th>
<th>Most Common Mentor Specialty</th>
<th>Percent (n)</th>
</tr>
</thead>
<tbody>
<tr>
<td>General Surgery</td>
<td>General Surgery</td>
<td>50% (12)</td>
</tr>
<tr>
<td>Vascular Surgery</td>
<td>Vascular Surgery</td>
<td>75% (3)</td>
</tr>
<tr>
<td>Cardiothoracic Surgery</td>
<td>Cardiothoracic Surgery</td>
<td>100% (6)</td>
</tr>
</tbody>
</table>
General Surgery Residents with a non-general surgeon mentor were more likely to have considered an integrated training paradigm ($p=0.003$)
Factors influencing specialty choice

- Did you consider an integrated sub-specialty residency?
  - Yes: 35%
  - No: 65%

- Was your mentor influential in choosing general surgery over an integrated residency?
  - Yes: 56%
  - No: 44%
What reason did your mentor give you?

If you weren’t sure of your eventual sub-specialty, it is better to match into General Surgery.

You will be a better surgeon if you match into General Surgery.
Nationwide Survey
Integrated Vascular Resident Survey

- Response rate: 34/241 : 14%

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- Age Distribution:
  - 25-29: 10%
  - 30-34: 71%
  - 35-40: 10%
  - >40: 5%

- Gender Distribution:
  - Male: 71%
  - Female: 29%
PGY Year of Survey Respondents

- PGY1: 26.5%
- PGY2: 23.5%
- PGY3: 17.7%
- PGY4: 14.7%
- PGY5: 8.82%
- PGY6: 5.88%
- PGY7: 2.94%

Total = 34
Mentor Specialty

- Vascular Surgeon: 67.9%
- General Surgeon: 14.3%
- Other Surgeon: 10.7%
- Other Non-surgeon Physician: 7.14%

Total=28
Where did you match on your rank list?

Residents with vascular surgeon mentors tended to match higher on their rank list (p=0.022)
My mentor was accessible.

81% Strongly agree
15% Somewhat agree

My mentor demonstrated professional integrity.

92% Strongly agree

My mentor prioritized my success

76% Strongly agree

Strongly disagree
Somewhat disagree
Neither agree nor disagree
Somewhat agree
Strongly agree
My mentor was honest with me about my match prospects.

69%
Strongly agree

My mentor was influential in my decision to pursue 0+5 Residency

23%
Neither agree nor disagree

50%
Strongly agree

Residents with vascular surgeon mentors were more likely to respond positively that their mentor was influential in their decision. (p<0.0001)
My mentor was knowledgeable about other 0+5 programs.

My mentor was knowledgeable about other traditional paradigm programs.

My mentor was well informed about residency application strategies

\[ P < 0.001 \]
Limitations

• Low response rate limits power
• Few respondents without mentors
• Few respondents at higher PGY levels.
• Intrinsic Survey Bias.
Conclusion

• Mentorship works
  – very satisfied with their mentors
  – vascular surgeon mentors are more knowledgeable
  – vascular surgeon mentor → higher match

• Societal sponsored mentorships may be successful
  – (perhaps an area to build on, especially at a regional level).

• Dispel myths about better skills with traditional paradigm.

• Connect students interested in Vascular Surgery with vascular surgeon mentors
Thank you.

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