Prospective Study on Surgical Residency Training and Attrition

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Background

- Attrition is high
- Lack National Data
- Resources lost
Specific Aims

- To determine incidence of attrition
- To identify factors associated with attrition
- To define areas of action
  - Policy or program based
Privacy Protection

- Yale IRB Approved
- No information on individual programs
- No information on individuals
Mixed Methods

Project Overview

Phase I

In Depth Interviews
  → Coding
  → Survey Development
    → Analysis
    → Prospective Cohort
      → Analysis
      → Recommendations for Action

Phase II
Phase I: Retrospective Interviews

Phase I. Interviews

Identification via In-Service Exam

Verification

157

117 Voluntary

9 - Involuntary

10 - Unknown

Purposeful Random Sample

136

40

Contact PD request INFO/Permission

Interviews Completed ~15

Excluded
6 – Stayed in surgery
4 – Legal matters

Coding Thematic Identification

Survey Development
Phase I: Preliminary Interview Results

Phase I. Emerging Themes

- Field of Surgery
- Programmatic Components
- Personal Components
Phase II. Prospective Cohort Project

Intern Survey of Expectations ➔ Annual Survey ➔ Attrition ➔ Data Analysis
PHASE II: Cohort Study

- Tracking residents annually
- Looking for
  - Changes in expectations
  - Changes in experience
  - Areas for intervention
# Intern Survey Response

## Sample Characteristics

<table>
<thead>
<tr>
<th></th>
<th>Surveys Returned (N/%)</th>
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<tbody>
<tr>
<td></td>
<td>YES</td>
</tr>
<tr>
<td><strong>Overall Response Rate</strong></td>
<td></td>
</tr>
<tr>
<td>By Program</td>
<td>194 (77)</td>
</tr>
<tr>
<td>By Resident</td>
<td>842 (80)</td>
</tr>
<tr>
<td><strong>Gender</strong></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>515 (63)</td>
</tr>
<tr>
<td>Female</td>
<td>306 (37)</td>
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</tbody>
</table>
ABSITE Survey

- Survey piloted and validated
- Looking for predictors of attrition
- Looking for areas for intervention
- Need to track annually
- Need for representative understanding
- ~60% response rate
Implications

- Changes in program structure/teaching may help lower attrition
- May be possible to predict who might leave and intervene earlier
- Possible need to increase the numbers of residents initially matched
Next Steps

- Annual Survey Analysis
- Comparison of Intern/Annual Results
- First evaluation of resident attrition

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Acknowledgements

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Survey Questions

- Demographics
- Reasons for entering surgery/choosing a program
- Expectations of Training, Fellowship, Practice
- Personality
## Published Reports

<table>
<thead>
<tr>
<th>Authors</th>
<th>Title</th>
<th>Publication</th>
<th>Institution</th>
<th>Year Published</th>
<th>Years Studied</th>
<th>Number of Residents</th>
<th>Rate of Attrition</th>
<th>Voluntary</th>
</tr>
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<tbody>
<tr>
<td></td>
<td>Gender-related attrition in a general surgery training program</td>
<td>JSR 77</td>
<td>Texas Southwestern</td>
<td>1988</td>
<td>1984 to 1996</td>
<td>(18/132)</td>
<td>Overall 14% (male 10.7%) (female 24.1%)</td>
<td>3 involuntary</td>
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<td></td>
<td>Whatever happened to the general surgery graduating class of 2001? Evaluations of surgery resident performance correlate with success in board examinations</td>
<td>Curr Surg 58 (2001)</td>
<td>Mayo Clinic Rochester</td>
<td>2001</td>
<td>1996</td>
<td>(4/8)</td>
<td>50% from the 01 class/but 23% from the residents they reviewed in their pool of 8---all voluntarily</td>
<td></td>
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<td></td>
<td></td>
<td>Surgery 113</td>
<td>St. Louis University</td>
<td>1993</td>
<td>1983-1993</td>
<td>?</td>
<td>23% (during non pyramidal years)</td>
<td></td>
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