AAMC Standardized Video Interview Update

This information was delivered to SAEM, CORD, AAMC Group on Student Affairs, Group on Educational Affairs, and Organization of Student Representatives at the 2017 spring meetings. It is intended for individual review and not intended for distribution.

May 2017

For questions please contact: residencyinterview@aamc.org
Agenda

• Background and Evaluation Plan
• Results of the 2016 SVI Research Study
• Next Steps: 2017 Operational Pilot with Emergency Medicine
• Questions
Program Directors want more information about personal competencies earlier in the process

• PDs consistently rate personal competencies as important for trainees to demonstrate when they enter residency

• Most information about applicants’ personal competencies comes from interviews (after a large percentage of applicants have been screened out)

• Current information about personal competencies is hard to use and interpret
...and some programs and specialties are developing their own tools

- ORTA – Otolaryngology's Resident Talent Assessment (Phone Interview)
- Orthopedic Surgery’s Video Interview
Applicants want to…

share complete picture of themselves beyond academics to add breadth and depth to their application.
What can AAMC do to help?
Investigate new tools for use in residency selection

• Help achieve balance by providing information that is:
  o Reliable and accurate
  o Easy to understand and use
  o Available for use in pre-interview screening
AAMC Standardized Video Interview
Goal of the Standardized Video Interview

• To provide objective, standardized information about applicants’ interpersonal and communication skills and knowledge of professionalism behaviors to help programs:
  o Identify applicants for invitation to interview and/or to finalize their Rank Order List
  o Include those who might not have otherwise been considered for interview
What format does the Standardized Video Interview take?

- Online
- Text-based questions
- Audio/video response
- 6 questions
- 21 minutes of interview time
  - 30 sec to read each question
  - 3 min to respond each question
What is the Standardized Video Interview designed to measure?

- Questions were reviewed by residency program directors for:
  - Relevance to targeted ACGME competencies
  - Potential for bias

- Only questions that survived the review were retained

Interpersonal Skills and Communication

Knowledge of Professional behavior
How is the Standardized Video Interview scored?

• Behaviorally-anchored scoring rubrics were developed for each target competency

• Rating scales were reviewed by Subject Matter Experts from residency programs
  o Relevance to target competencies
  o Appropriateness for each level on the rating scale

• Responses to each question are rated on a 5-point scale and summed to create a total score ranging from 6 to 30
Who are the Raters? How are they trained?

• Rater Selection
  o Worked with vendor to provide a diverse pool of raters
  o Raters’ experienced in HR and assessment

• Rater training
  o Customized SVI Unconscious Bias training (AAMC DPP)
  o SVI training and practice
  o Ratings were monitored
    o Raters were re-trained and/or removed from pool, if necessary
Emergency Medicine and AAMC partnered to conduct this research

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<tr>
<th>SAEM</th>
<th>CORD</th>
<th>AAMC staff</th>
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<tr>
<td>Andra Blomkalns, MD</td>
<td>Fiona Gallahue, MD</td>
<td>John Prescott, MD</td>
</tr>
<tr>
<td>Steve Bird, MD</td>
<td>Gene Hern, MD</td>
<td>Renee Overton, MBA</td>
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<td><strong>AACEM</strong></td>
<td><strong>EMRA</strong></td>
<td><strong>Dana Dunleavy, PhD</strong></td>
</tr>
<tr>
<td>Richard Wolfe, MD</td>
<td>Ramnick (Ricky) Dhaliwal, MD</td>
<td><strong>Keith Dowd, MA</strong></td>
</tr>
<tr>
<td><strong>CDEM</strong></td>
<td><strong>AAEM-RSA</strong></td>
<td><strong>Malika Fair, MD</strong></td>
</tr>
<tr>
<td>Rahul Patwari, MD</td>
<td>Mary Calderone Haas, MD</td>
<td><strong>Virginia Bush</strong></td>
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<td>Kathy Hiller, MD</td>
<td><strong>GSA</strong></td>
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<td>Nicole Deiorio, MD</td>
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<td>Yolanda Haywood, MD</td>
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<td>Christopher Woleben, MD</td>
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How is the Standardized Video Interview evaluated?

• Multi-stage project to investigate the long-term viability of the SVI for use in residency selection

• Includes several phases of research

• Hypotheses address:
  o Psychometrics
  o Group differences and fairness
  o Evidence of validity
  o Selection decision making
  o Operational issues
Phases of evaluation

**Field Test**
- 2016-2017 (research only)
- Answer **basic** questions
- Rater reliability and scoring distribution
- Group differences
- Correlations with selection data

**Operational Pilot**
- 2017-2018
- Answer more **nuanced** questions
- Partner with a subset of programs to conduct local validation studies (predict PGY1 performance)
- User reactions
- Market research and cost

**Operational**
- 2018 Expansion to other specialties
- On-going psychometric and validity research

**Go/No-Go Decision**

**Constituent input**
Results of the 2016 SVI Research Study with Emergency Medicine
What is the AAMC Standardized Video Interview Research Project?

- Research project to evaluate the viability of video-based interviews for use in residency selection
- Created four prototype SVI forms
- Invited ERAS 2017 applicants to Emergency Medicine, OB/GYN, Pediatrics, and General Surgery to participate
- $50 gift card to amazon.com (first 2,000 participants)
- Open from June 27-Nov 30, 2016
Research Questions

• Do raters demonstrate adequate agreement/reliability?
• Did raters use full range of the rating scale?
• Do ratings differ by gender and race/ethnicity?
• What is the correlation between SVI ratings Step exams?
We invited applicants who were applying for residency in EM, OB/GYN, PEDS, and IM to participate in the SVI Research Study from June 2016 to December 2016.

<table>
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<th>Total # Invited to Participate</th>
<th>Total # Completed SVI</th>
<th>Overall Response Rate</th>
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<td>15,529</td>
<td>1,760</td>
<td>11.3%</td>
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Gender composition of the sample

All Participants vs. Analysis Sample (Forms 1 & 2)

% Gender

Male (All=1,026; Sample=516)
60.5%

Female (All=734; Sample=337)
39.5%
The demographic composition of sample

All Participants vs. Analysis Sample (Forms 1 & 2)

% Race/Ethnicity

- **White**: 52.6%
  - (All=921; Sample=449)
- **Black**: 10.6%
  - (All=116; Sample=90)
- **Hispanic**: 7.4%
  - (All=126; Sample=63)
- **Asian**: 25.6%
  - (All=455; Sample=218)
Rater agreement was good

- **Form 1**
  - Calibration 1 (20 interviews)
    - 6 questions per interview (720 total ratings)
    - ICC(2,k) = 0.78
  - Calibration 2 (120 interviews)
    - 6 questions per interview (2,160 total ratings)
    - ICC(2,k) = 0.81

- **Form 2**
  - Calibration 2 (20 interviews)
    - 6 questions per interview (120 total ratings)
    - ICC(2,k) = 0.81
SVI total scores were normally distributed and, used the full range of the score scale.

Distribution of SVI Total Scores (Forms 1 & 2)

% of SVI Total Scores

Context: Responses to each question were rated on a 5-point scale. There were six questions so the total score ranges from 6 to 30. In this sample, the mean = 18.7 and SD = 2.8.
Group differences ($d$)

- The difference between average grades or test scores for two groups (majority vs. non-majority) divided by the standard deviation for the majority group.
- A positive effect size indicates that the majority group scored higher.
- A negative effect size indicates that the non-majority group scored higher.

\[ d = \frac{X_1 - X_2}{\sigma} \]

$X_1$ = Mean for majority group  
$X_2$ = Mean for non-majority group  
= Overall standard deviation

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<th>Effect Size</th>
<th>$d$</th>
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<tr>
<td>No effect</td>
<td>&lt;.20</td>
</tr>
<tr>
<td>Small</td>
<td>.20</td>
</tr>
<tr>
<td>Medium</td>
<td>.50</td>
</tr>
<tr>
<td>Large</td>
<td>.80</td>
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Context: Achievement tests typically report large group differences by race/ethnicity
There was no difference between males and females ($d < .20$)

Average (SD) SVI Total Score

<table>
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<tr>
<th>Gender</th>
<th>Avg.</th>
<th>SD</th>
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<tr>
<td>Male</td>
<td>18.6</td>
<td>2.9</td>
</tr>
<tr>
<td>Female</td>
<td>18.8</td>
<td>2.7</td>
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$M-F\ d = -0.06$

No Effect

Sample Size:
- Male: N=516
- Female: N=337
There were no (W-B) and small (W-H, W-A) group differences by race/ethnicity.

<table>
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<tr>
<th>Race/Ethnicity</th>
<th>Avg. (SD) SVI Total Score</th>
<th>Effect Size</th>
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<tbody>
<tr>
<td>White (N=449)</td>
<td>19.1 (2.7)</td>
<td>W-B $d = .03$ No Effect</td>
</tr>
<tr>
<td>Black (N=90)</td>
<td>19.0 (2.7)</td>
<td>W-H $d = .21$ Small effect</td>
</tr>
<tr>
<td>Hispanic (N=63)</td>
<td>18.5 (2.4)</td>
<td>W-A $d = .37$ Small Effect</td>
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<tr>
<td>Asian (N=218)</td>
<td>18.1 (2.9)</td>
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Correlations

• Context matters when interpreting correlations.
• Here is one set of “rules of thumb” for interpreting the magnitude of correlations:

<table>
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<tr>
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<tbody>
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<td>No effect</td>
<td>&lt;.1</td>
</tr>
<tr>
<td>Small</td>
<td>.1</td>
</tr>
<tr>
<td>Medium</td>
<td>.3</td>
</tr>
<tr>
<td>Large</td>
<td>.5</td>
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The correlations between SVI total scores and Step exams suggest that the SVI is not measuring academic knowledge and reasoning.
An IRB-approved research study can’t provide:

- **Access** to the videos

- We couldn’t investigate:
  - Correlations between SVI scores and trainees’ performance
  - Use of the SVI in the selection process
  - Program Directors’ perceptions of whether SVI scores would add value
Next Steps: 2017 Operational Pilot with Emergency Medicine
How will Pilot work?

- ACGME-Accredited Emergency Medicine Programs
- AAMC absorbs cost of pilot
- Pilot occurs during ERAS 2018 season
# Timeline

<table>
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<tr>
<th>Timeline</th>
<th>Activity</th>
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<tr>
<td>May 1, 2017</td>
<td>“Tips for Preparing for the Standardized Video Interview” Toolkits Available “Standardized Video Interview Essentials” Available Accommodations Instructions Available</td>
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<tr>
<td>June 6, 2017</td>
<td>MyERAS opens. Applicants indicate intent to apply in EM</td>
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<tr>
<td>June 6 – July 31, 2017</td>
<td>Applicants receive invitation and complete Standardized Video Interview</td>
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<tr>
<td>August 1, 2017, 12:00a ET</td>
<td>Deadline to complete Standardized Video Interview</td>
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<tr>
<td>Early June – Sept 8, 2017</td>
<td>Interviews are reviewed and scored by raters</td>
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<tr>
<td>August 2017</td>
<td>Residency programs trained in unconscious bias and using Standardized Video Interview data appropriately</td>
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<tr>
<td>September 15, 2017</td>
<td>Standardized Video Interview videos and scores are available to programs</td>
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Evaluation

• Replicate and extend the 2016 study
  o Psychometrics
  o Group differences and fairness
  o Evidence of validity
    o Correlations with ERAS data
    o Correlations with trainee performance
  o Selection decision making
    o Use in selection process
    o Value to the selection process
Resources

www.aamc.org/standardizedvideointerview

• Pilot Overview
• Frequently Asked Questions
• Applicant Resources (coming May 1)
• Accommodations Information (coming May 1)

Webinars: Coming in May

Questions: residencyinterview@aamc.org
Questions?