Strategies for Equity, Diversity, & Inclusion in the Medical Physics Residency Recruitment Process

Titania Juang, PhD
Assistant Professor
Radiation Medicine & Applied Sciences

UC San Diego Health
RETHINKING MEDICAL PHYSICS
Strategies for Equity, Diversity, & Inclusion in the Medical Physics Residency Recruitment Process

- Equitable recruitment practices
- Diversity within your applicant pool
- Inclusive toward all candidates
Strategies

- Adverse Impact Assessment
- Structured Interviewing
What is adverse impact?

Adverse impact is a substantially different rate of selection in hiring, promotion, or other employment decision which works to the disadvantage of members of a race, sex, or ethnic group.*
Adverse impact is a **substantially different rate of selection** in hiring, promotion, or other employment decision which works to the **disadvantage** of members of a **race, sex, or ethnic group**.*

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How do you determine a substantially different rate of selection?
Adverse Impact Assessment

How do you determine a substantially different rate of selection?

U.S. Equal Employment Opportunity Commission

29 CFR 1607 - UNIFORM GUIDELINES ON EMPLOYEE SELECTION PROCEDURES (1978)

The Four-Fifths Rule

A selection rate for any race, sex, or ethnic group which is less than four-fifths (or 80%) of the rate for the highest selected group will generally be regarded as evidence of adverse impact.
Adverse Impact Assessment

The Four-Fifths Rule*

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Impact Ratio Calculation

\[
\text{Impact Ratio} = \frac{\text{Selection rate of the group you're assessing}}{\text{Selection rate of the highest selected group}}
\]

\[
\frac{37.5\%}{58.3\%} = 0.641
\]

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Impact Ratio Calculation

\[
\frac{\text{Selection rate of the group you're assessing}}{\text{Selection rate of the highest selected group}} = \frac{37.5\%}{58.3\%} = 64.3\% < 80\%
\]

<table>
<thead>
<tr>
<th>Applicant Pool</th>
<th>Post-Screening</th>
<th>Selection Rate</th>
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<tbody>
<tr>
<td>8</td>
<td>3</td>
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## Adverse Impact Assessment

### The Four-Fifths Rule*

A **selection rate** for any race, sex, or ethnic group which is less than four-fifths (or 80%) of the **rate for the highest selected group** will generally be regarded as evidence of **adverse impact**.

### Real-Life Example

2021 Residency Application Cycle

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Adverse Impact Assessment

The Four-Fifths Rule*

A selection rate for any race, sex, or ethnic group which is less than four-fifths (or 80%) of the rate for the highest selected group will generally be regarded as evidence of adverse impact.

Real-Life Example
2021 Residency Application Cycle

Selection rate of the group you're assessing

\[
\frac{57.7\%}{58.3\%} = 98.9\% \geq 80\%
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Selection rate of the highest selected group

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A few notes on the Four-Fifths (80%) Rule *

- Not intended as a legal definition
- Evaluates practical significance
- Groups assessed must be >2% of applicants
Adverse Impact Assessment

What if adversive impact is indicated?

- Review and analyze your selection process.

Remember that discrimination…*

- Can result from neutral employment policies and practices which are applied evenhandedly to all applicants, but which have the effect of disproportionately excluding groups of applicants.
- Can occur without discriminatory motives.

* CM-604 Theories of Discrimination
https://www.eeoc.gov/laws/guidance/cm-604-theories-discrimination
Strategies

+ Adverse Impact Assessment
+ Structured Interviewing
  • Content
  • Evaluation
## Structured Interviewing

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- Susceptible to biases (e.g. race, gender, disability)
- May not reflect job requirements

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+ Limits the influence of information that can trigger biases
+ Focuses the process on job-related factors

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Structured interviews improve...*

**Reliability**
Consistency of candidate evaluations and the evaluation process.

**Validity**
Accuracy of job-related inferences from the interview.

**Fairness**
Applicants are evaluated on the same metrics.

Structured Interviewing

Tips for creating a structured interview

1. Call in the experts!
2. Define competencies
3. Create behavioral and situational questions
4. Develop a rating scale
5. Iterate and improve
structured interviewing

1. Call in the experts!
   …and others working on EDI and recruitment

   ➤ Consider reaching out to…
     • Your HR department
     • Your physician counterparts
     • Colleagues in other departments
Structured Interviewing

2 Define competencies

- What makes a good resident?
  - Identify characteristics that have led to successful performance
  - Categorize these into competency areas

- Define “fit” → compatibility with the job and your organization
  - What does a “good fit” mean for your program?
  - Define work/job-related characteristics (attitudes, knowledge, skills) and incorporate them into your competency areas
Structured Interviewing

3 Create behavioral and situational questions
...that can assess the competencies you’ve identified

- **Behavioral questions**
  - Past behavior predicts future behavior
  - What have you done in a past job-related situations?

- **Situational questions**
  - Intentions predict future behavior
  - What would you do in a hypothetical job-related situation?
Structured Interviewing

4 Develop a rating scale

- Rating scales can evaluate responses for individual questions, competencies, or overall suitability

- Consider anchoring your rating scales with written examples for each score value
  - Reduces bias
  - Improves validity
  - Improves reliability in ratings between interviewers

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5 Iterate and improve

After interviews, evaluate your process
• Did responses to your questions provide relevant information on the competencies you identified?
• Did the rating scale(s) work as intended?
• Do your scores show any sign of systematic bias?

Adjust your process based on what you’ve learned
• Content, evaluations, interviewer training
Structured Interviewing

Resource

Best Practices for Conducting Residency Program Interviews

The AAMC guide for residency programs as they prepare to interview candidates.

https://www.aamc.org/media/44746/download
Structured Interviewing

Resource
The structured employment interview: Narrative and quantitative review of the research literature.

Strategies for Equity, Diversity, & Inclusion in the Medical Physics Residency Recruitment Process

- Adverse Impact Assessment
- Structured Interviewing
Final Thoughts

• Developing an equitable recruitment process is iterative

• Training is critical
  • Standardized interview processes
  • Implicit/unconscious bias

• Consider how you can ensure your interviewing process and environment is inclusive toward all applicants
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