The black box of resident selection; the program director’s perspective on what matters

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I do not have any affiliation (financial or otherwise) with a pharmaceutical, medical device or communications organization.
Introduction

• High stakes assessment and Important transition moment (Roberts 2017)

• Selection principles: (Bandiera 2015, Plint/Patterson 2010)
  • Transparency
  • Fairness
  • Criteria and Instruments - Reliability and Validity – predicting future performance
  • Focus on diversity

• Two frameworks: (Roberts 2017)
  1. Well-defined criteria – multiple methods of assessments
  2. Locally defined criteria – subject to personal opinion of selector
Introduction

- Wealth of research with focus on psychometric aspects of selection methods
- At least as important are the people involved – ‘human factor’
- Decision-making process is influenced by intuition and biases

(Kahneman/Klein 2009, Miles 2014)
Gain insight into program director’s attitudes, values and beliefs on selection
Methods

- Setting: ‘the Netherlands’:
  - locally defined criteria
  - selection committee: PDs, faculty, residents etc.

- Exploratory qualitative interview study
- 11 PDs from different specialties
- Focus on: candidates’ characteristics and decision-making
- Analysis: combined approach of in-vivo and generic coding (Miles Huberman 2013)
RESULTS - Theme 1. The ideal candidate
“I believe that in order to be a competent physician you should be trained as a scientist. So you should pursue a PhD track or at least a scientific project. I think you learn a lot from this and it makes you a better professional, because you understand and are able to assess what is described in literature. And because you can participate in many scientific discussions.”

“I believe that’s over the top. I do not train scientists! I train residents and they do not require a PhD.”
“They [the known candidates] are prioritized. Because we know them. Look, I’d say; ‘we fear what we don’t know’. And we just know they’re good candidates.”
Trust your gut

intuition
“I’ve learned from that situation: I have to listen to my gut feeling”

“It’s all very subjective.. You get a certain feeling. And then we decide [on who to admit] “. 
Proxies

• Alternative indicators of a desired characteristic:

“Because musical talent.. Perhaps I’m biased for I’m a passionate musician myself. But if you make music you have to be a good collaborator. Otherwise you won’t be able to make good music.”
“Well, I don’t .. I hold a PhD on the prognosis of [disease], which is so very complex to predict, that it is practically impossible. You can only provide the certainty that there is no certainty. I think that, when it comes to selection and admissions, this is the main conclusion.”
“and then you wonder how you could have been so wrong about that candidate.. How could he have seemed so promising at the time while now he’s a resident at our department I see his true nature. I had nightmares about it for weeks.”
Discussion

- **Intuition / Judgmental biases**
  
  - “appreciate intuition as a distinct form of information processing with its own strengths and limitations” (Miles 2014)

- **Pre-selection**
  
  - Poses a threat to the fairness of the procedure

- **Merit – Proxies – not made explicit**
  
  - Source of judgemental bias - might compromise fairness and reliability
Conclusion

- Create awareness amongst selectors of the potential influence of values and beliefs, biases and intuition

- Mitigate the “cons” of human factor by engaging selection committee members towards developing a more structured procedure
Thank you for your attention

Please feel free to contact me: k.dijkhuisen@lumc.nl
• **Bandiera** et al. (2013). Best practices in applications and selection. University of Toronto.


• **Miles/Huberman.** (2013). Qualitative data analysis, a methods sourcebook. *Sage Publications Inc.*


Extra slides
Meta-analysis (85 years of literature)
Predictive validity of selection instruments
Criterion: job performance (in training programs) - job related learning

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<th>Instrument</th>
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"Past performance is best predictor of future performance" (Schmidt-Hunter 1998)

- Behavioral/structured interview and Role of clinical experience (ANIOS)
Human decision-making

• Intuition: “Affectively charged judgements that arise through rapid, non-conscious and holistic associations” (Dane Pratt 2007)

Mechanical/Objective/Algorithm (system 2)

versus

Judgemental/Subjective/Intuition (system 1)

To develop skilled intuition: (Kahneman 2009)

1. high validity environment
2. opportunity to practice (feedback)

Resistance towards using more ‘system 2’ (Miles 2014, Kahneman 2011)
Implications for practice

• Attention and awareness for the role of ‘human factor’ (intuitive judgement) and empiric evidence regarding selection instruments

• Training of stakeholders involved in the selection procedure (PDs)
  • Start with detailed job analysis -> job description (Patterson 2010)
  • Structured procedure – multiple instruments and reflection of complexity job
  • Validation
  • Assess candidates perceptions