

Title: Developing selection methodology for entry into postgraduate training; Validity, utility & candidate reactions.

Authors: Patterson F, Gregory S, Irish B & Plint S

Objectives:

Selection of doctors into postgraduate training is an under-researched area and it is currently a topic of fierce debateⁱ. This paper reports on the development and validation of a new national 3 stage selection system for General Practice in the UK. Initial research using job analysis produced a valid model of selection criteriaⁱⁱ. These criteria are assessed in the selection system which comprises (Stage 1) 'long-listing' and eligibility checks; (Stage 2) short listing via two machine-marked tests (a clinical problem-solving test and situational judgement test (SJT) to assess non-clinical domains (e.g. empathy) and; (Stage 3) a selection centre comprising work relevant simulations (consultation, group & written exercises). This represents a significant innovation beyond the use of traditional application form and interview selection methods. For example, although the SJT methodology has been validated for use in medical school admissionsⁱⁱⁱ ^{iv}this is the first application in postgraduate selection.

Approach

There are approximately 9,000 applicants per year for training in GP in the UK. We present validation data over 3 years (2005-8) focusing on 7 core issues.

1. Content/predictive validity: Are some selection criteria more readily assessed using a specific method? What is the relative accuracy of each tool?
2. Construct validity: e.g. Is there evidence the methods are actually measuring empathy?
3. Test format/instructions: How should candidate instructions be presented and what effect does this have on the response process?
4. Fairness issues: How do we minimise adverse impact in the design process?
5. Susceptibility to coaching: What are the issues regarding coaching/social desirability? What strategies can be applied?
6. Cost-effectiveness: What is the net gain in cost efficiency of using one method over another?
7. Fairness & candidate reactions: Do candidates perceive this as a fair and legitimate selection system?

Outcomes

Results show the selection system to be a psychometrically valid and efficient selection methodology. The most effective combination of methods at each stage is identified and empirical evidence of incremental validity is provided. Candidate reactions are generally positive although areas for improvement are recognised. Evidence of procedural and distributive justice for the selection system is presented.

Conclusions

Best practice development of selection methodology is discussed for entry into post-graduate training and is linked to research in medical school admissions^v. Results have major implications for international policy development for selection of doctors across all specialties. A future research agenda is presented.

ⁱ Tooke J. *Aspiring to Excellence*. 2007.

ⁱⁱ Patterson et al. A competency model for GP; Implications for selection & development. 2000, *BJGP*, 50, 188-193.

ⁱⁱⁱ Lievens F, et al. The operational validity of a video-based situational judgment test for medical college admissions: Illustrating the importance of matching predictor and criterion construct domains. *Journal of Applied Psychology*, 90, 442-452, 2005.

^{iv} Patterson F, et al. (under review) Evaluation of three short-listing methodologies for selection into post-graduate training: the case of General Practice in the UK. *Medical Education*.

^{vv} Patterson, F. & Ferguson, E. Selection into medical education and training. 2007, *ASME monograph; Understanding Medical Education* .