Short Communication: 

Situational Judgement Tests

Location: MR 118 – Pi

#8K1 (134726)

General Surgery Residency Selection Process: 
Situational Testing to Evaluate Surgical Non-Technical Skills

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Background: Traditionally, surgical residency selection involves the evaluation of academic scores, recommendation letters, research pursuits and performance on the interview day. As part of a comprehensive General Surgery residency selection process, we report a novel assessment of situational testing to evaluate the non-technical skills of applicants.

Summary of Work: During the one-day selection process, which also included a formal interview and technical skills evaluation via a laparoscopic simulator system, applicants were randomly allocated into groups of 3 or 4. Each group was given a recipe, limited ingredients and equipment to bake souffle within 90 minutes. This was performed in a high-fidelity simulator complex and assessment, by a team of 5 trained assessors, was based upon the validated Non-Technical Skills of Surgeons (NOTSS) system by the Royal College of Surgeons of Edinburgh.

Summary of Results: In 2015, 21 applicants (14 males, 7 females) in 6 groups, underwent evaluation. The average age was 26 years-old and only 3 applicants had prior baking experience. The average score amongst the applicants was 31 (maximal score at 48). Krippendorff’s alpha coefficient for inter-rater reliability was satisfactory at 0.665. The average scores of 6 successful applicants ranged from 34 to 45.

Discussion: We present here a novel assessment of situational testing to evaluate the surgical non-technical skills of residency applicants. The task of team souffle baking with limited resources mirrors most surgical situations, for which situational awareness, decision-making, communications and teamwork and leadership are imperative. Based upon the validated NOTSS system, our assessment tool has satisfactory inter-rater reliability. Prior baking experience is not a confounder in the selection process.

Conclusion: Evaluation of surgical non-technical skills of General Surgery residency applicants may be achieved with a situational test, and with NOTSS system adopted as an assessment tool.

Take Home Messages: A situational test enables evaluation of surgical non-technical skills in residency applicants.

#8K2 (135061)

Undergraduate medical course applicants’ ratings of the value of a Situational Judgment Test (SJT) as a selection tool

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Background: Candidate reactions to the SJT as a selection tool have been assessed in postgraduate medical selection1, and teacher training2, but not in undergraduate medical course applicants. No studies have investigated these candidates’ ratings of the value of the SJT as a selection tool relative to other tools.

Summary of Work: Multiple Mini Interview (MMI) candidates applying for the MBBS at Monash University completed a pilot online 80 scenario SJT during the 2015 and 2016 admissions cycles (N=503, 57.9% female, mean age 18.2 years, SD 0.49). At SJT completion, candidates rated the difficulty of the SJT relative to the Undergraduate Medicine and Health Sciences Admissions Test (UMAT). Face validity of the SJT was assessed via ratings of scenario relevance, suitability as a selection tool, and ranking of the SJT relative to the UMAT, MMI, and Year 12 score. Open text boxes enabled candidates to describe reasons for their ratings.

Summary of Results: Most (72.3%) rated the SJT as less difficult than the UMAT, and 70% could relate to the SJT scenarios. Nearly all (91.1%) rated the SJT questions as relevant for medical course selection, with 66.5% rating the SJT as a suitable selection test. The MMI was ranked as the most useful selection tool by 56.4%, with 31.6% nominating Year 12 score. The UMAT was ranked as the least useful selection tool by 45.5%, and the SJT by 23.6%. Open text responses revealed that candidates preferring the UMAT found the SJT repetitive, and lacking in variety of item type. Candidates preferring the SJT enjoyed the test, its shorter test time, realistic scenarios contextualized in medicine, and perceived relevance to future practice.

Discussion: This study provides evidence of higher face validity of the SJT relative to the UMAT, but not the MMI or Year 12 score. Despite their young age, most candidates were able to relate to the medically contextualized scenarios.

Conclusion: School leaver medical course applicants can relate to medically based SJT scenarios. The SJT has greater face validity in this population relative to the UMAT, with MMI perceived as the most valid selection tool.

Take Home Messages: The SJT is a viable tool for undergraduate medical course selection, in conjunction with other selection tools.
Online Situational Judgement Tests: Implication and perspectives of group test taking in CASPer

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Background: As medical education increasingly involves some degree of online assessment, including in the selection process, implications of online testing must be examined. CASPer, an online-primarily situational judgement test (SJT) assesses medical applicants’ personal/professional characteristics. CASPer is unproctored, requiring applicants to medical school to review 12 scenarios and respond to three open-ended questions regarding the scenario in only 5 minutes. As this is done online, without proctoring, concerns arise that applicants may collaborate in the development of their responses. This research assessed if CASPer scores were enhanced through collaborative test-taking in the 5-minute/question time restriction.

Summary of Work: Participants were randomly assigned to complete CASPer independently or as part of a writing pair. Paired participants were either designated to be the “applicant” or their “helper”. Outcomes included total CASPer score and results of an exit survey of their experience completed by all participants.

Summary of Results: 52 total participants, 18 individuals and 17 pairings, completed the test. No significant difference was found in mean scores from those who completed CASPer independently (x = 5.9) compared to those who completed CASPer in a pair (x = 6.2, F = 1.31, p ns). When asked if they completed CASPer again would they complete it independently or with assistance, 71% indicated a preference to complete CASPer independently. Reasoning for this included discord in response perspectives within the pair.

Discussion: The results of this pilot research support the notion that given the limited response time there is little benefit to having an additional person assisting you in the completion of CASPer.

Conclusion: Time restriction may allow additional test security of ensuring independent writing of online examinations

Take Home Messages: Online testing with a time restriction can be feasibly applied to selection.