Short Communication: Multiple Mini-Interviews
Location: MR h8 – P1

#7K1 (134420)
Addressing unprofessional behaviour: selecting for values in Multiple Mini-Interviews (MMI)

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Background: Medical schools continue to develop MMI stations to assess non-cognitive, personal characteristics and values. While there is no general consensus in the literature on which characteristics are most desirable, communication, empathy and integrity appear to have been the focus. Building on recent studies, we wanted to develop stations that explored empathy and professionalism with the aim of assessing the candidates’ analysis of a situation and expression of values rather than moral judgement.

Summary of Work: Working with students, we developed four scenarios to illustrate professionalism issues. These included cheating, non-attendance, inappropriate use of social media and fraud. Each scenario involved two students having a conversation in which one of the issues was raised. We produced four short film clips to be used in 5 minute MMI stations along with a series of trigger questions. We piloted the scenarios with current medical students, candidates applying for entry to a UK medical school (graduates and school-leavers) and prospective medical students in North America.

Summary of Results: Qualitative and quantitative data detailing the development of four film based MMI stations will be presented. We are currently undertaking this pilot and early results indicate that developing a new MMI station in this field is resource intensive and problematic.

Discussion: Many variables need to be considered in developing scenarios to assess a candidate’s understanding of professionalism and their expressed values. Challenges that have arisen include understanding regional accents, use of slang, effect of subtitles and devising effective trigger questions. Future work will include correlating MMI station scores with assessments of professionalism in medical school.

Conclusion: A film based situational judgement analysis to assess for communication, professionalism and empathy appears to be very challenging.

Take Home Messages: Professionalism and the integrity of our future doctors is a priority that medical schools should address at the selection stage and may be achieved using film-based MMI stations.

#7K2 (134498)
Sociodemographic characteristics of applicants as barriers and enablers to communication in Multiple Mini-Interviews (MMI)

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Background: MMI are commonly used for medical school admission. This study aimed to assess if age, gender, ethnocultural background, language and socioeconomic status have an impact on performance in MMI, and to explain how these characteristics can act as barriers or enablers when considering MMI as a communication interaction.

Summary of Work: This mixed-method study combined data from a sociodemographic questionnaire and MMI scores, semi-structured interviews with candidates and focus groups with assessors. Quantitative and qualitative data were analysed using multiple linear regression and a thematic framework analysis, respectively.

Summary of Results: In 2014-2015, 1099 applicants responded to a questionnaire (response rate 93.9%). A multiple linear regression model (adjusted R² = 0.086) demonstrated that being age 25-29 (β = 0.11, p=0.001), female and a French-speaker (β = 0.22, p=0.003 in an interaction term) were associated with better scores. Having a parent born in Asia was associated with a poorer performance (β = -0.12, p < 0.001). In 2015, high family income was also associated with a better score. In the qualitative data, participants discussed how maturity and financial support improved life experiences, how language issues could act as a barrier, and how some ethnocultural differences could lead to misunderstandings.

Discussion: Findings can be understood through a communication model where station context, applicants’ communication styles, life experiences and ethnocultural characteristics can act as barriers or enablers. Good language proficiency seems especially important for successful MMI.

Conclusion: Sociodemographic characteristics have a significant impact on applicants’ score in MMI and seem to influence the way applicants communicate. Adjustments regarding the use of language in stations could be made to improve fairness. Care should be given to t

Take Home Messages: Monitoring the impact of sociodemographic characteristics on MMI scores can provide guidance for design, improvement of stations and interviewer training.
Using the BioMedical Admissions Test (BMAT) to support shortlisting for multiple mini interviews (MMI)

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Background: BMAT is used by several UK and international universities in selection processes for medicine, dentistry and biomedical sciences. BMAT Section 1 (Aptitude and Skills) measures candidates’ skills in understanding arguments, problem-solving, and data analysis. Section 2 (Scientific Knowledge and Applications) examines ability to apply scientific knowledge typically covered in non-specialist school science and mathematics courses. Section 3 comprises a writing task requiring test-takers to develop ideas and communicate them concisely. Institutions vary in how they use BMAT scores as part of their admissions process. One potential use is as a criterion (usually in combination with other measures) to shortlist candidates for MMIs.

Summary of Work: Two case studies of the relationship between BMAT and MMI performance will be presented. The process of shortlisting for MMI will be described in each case, including the extent to which BMAT scores were weighted in any shortlist decisions. Scores on each section will be correlated with candidates’ performance on individual MMI stations and overall. In cases where BMAT has been used cautiously in selection, the potential impact on MMI performance of giving greater weight to BMAT scores will be explored.

Summary of Results: It was hypothesised that scores on Sections 1 and 3 would correlate with MMI stations focussed on interpersonal communication, interaction and discussion and problem-solving. Initial analyses indicate this pattern. Section 2 is not expected to correlate strongly with MMI performance, unless the station has a distinct science knowledge element.

Discussion: The extent to which BMAT scores correlate with MMI performance will be discussed and the implications for using BMAT scores in different ways for shortlisting presented.

Conclusion: Initial analyses indicate that BMAT scores show small but significant correlations with aspects of MMI performance and can support early shortlisting of applicants.

Take Home Messages: BMAT compares favourably to other methods for shortlisting candidates for MMIs.
Implementing an Empathy Specific Entrance Test for Medical School

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Background: Using empathy, doctors build and maintain the trust of patients and colleagues. Empathy is a key attribute required of aspirant medical students. However, the expression of empathy is difficult to objectively assess during selection. Drawing on an established classification of emotive and evaluative expression and related empathy-specific linguistic framework, a testing tool to assess applicants’ ‘empathic performance’, suitable for use as a multiple mini interview (MMI station) was developed.

Summary of Work: Following extensive development, a Multiple Mini Interview (MMI) station using commissioned video clips were used to elicit the reaction of aspirant medical students and added to the usual MMI circuit. Eight different clips using four scenarios, with either a male or female actor were used on rotation for 600 interviews. Data from interviewers were used to assess the acceptability of the station.

Summary of Results: Preliminary analysis demonstrated that the station added a new dimension to the selection process. While 60 (42%) of those assessed scored similar marks on both stations designed to assess empathy, 32 (23%) had markedly different scores.

Discussion: Analysis of full interview cycle (March 16), will include relationship with UKCAT-SJT score, interviewee demographics, changes of over time (as awareness of this new style station is disseminated), impact on probability of receiving an offer, and the relationship between the gender of the applicant and the gender of the actor. Any or all of these factors may impact on assessment of empathy.

Conclusion: This test has made it possible to assess more directly empathic ‘performance’ rather than rely on reported (and hence prepared) examples of empathy, thus making assessment of empathy more equitable.

Take Home Messages: It is possible to develop an MMI station to assess ‘shown’ empathy rather than rely on reported examples of empathy.