Dame Lesley Southgate Travelling Fellowship in Assessment 2018

Topic: Assessment for undergraduate medical ethics

Host institution: University of Nicosia Medical School, Cyprus

First of all, I wish to express my thanks to Professor Hayden and the Academy for awarding me this fellowship. I must also thank my Drs Julia Hynes and Paola Nicolaides, and Professor Andreas Charalambous, the Executive Dean of the University of Nicosia Medical School for facilitating my visit.

Medical ethics education plays an essential role in the development of professionalism. However, ethics as a subject presents difficulties in assessment as we must consider not only knowledge and behaviours but also potentially the underlying motivations. Following Aristotle, our aim should be to ensure that our students are doing the right thing for the right reason

In the medical school where I work, Queen's University, Belfast (QUB), the year 1 ethics course consists of a short lecture series supplemented by a tutorial. The assessment is by 10 Single Best Answer (SBA) multiple choice questions as part of a larger examination. Short Answer Questions (SAQ) had been used previously but marking had been problematic due to a low staff to student ratio. The limitation of SBA questions as a single method of assessment for ethics assessment is well recognised. Having recently taken on the role of lead for the ethics course I was interested in exploring how ethics can be assessed. I was fortunate in knowing Julia Hynes, the ethics and professionalism lead at the University of Nicosia Medical School, and was grateful for the opportunity to see how the ethics assessments are conducted there. In addition to ethics SAQs the students are examined in ethics and professionalism as part of their Objective Structured clinical Examinations (OSCEs). I was able to review some of the SAQ papers and to observe the relevant OSCE stations. Discussion with the faculty regarding the assessments were also very helpful. During my visit I was also able to conduct a short research project which I plan to use as the basis for my dissertation towards an MSc in Clinical Education.

Having become aware of the computer-based *QuestionMark* online examination system I was interested in the possibility of developing a more sophisticated ethics examination. Whilst the student must still select from a number of options, *QuestionMark* allows the possibility of multiple stage questions in different formats. It also allows immediate feedback and, crucial for multiple stage questions, there is the possibility of offering additional information to get the candidate 'back on track' if they have chosen an incorrect option at an earlier stage.

My aim was to devise a series of assessments based on clinical scenarios. The students would not be given the whole scenario initially, instead the story would unfold, with questions being asked at each stage. This would allow demonstration of more complex reasoning. The facility to ask several phased questions for each scenario also meant that it was possible to assess the students' immediate response to the situation, their understanding of relevant rules and guidance, and also the underlying ethical principles on which such rules depend. Three scenarios were developed. These would present the students with a frail elderly patient with life-threatening sepsis, the anxious relative of a confused man with a new diagnosis of a terminal illness, and an agitated intoxicated teenager. The questions would deal with issues such as consent and capacity, confidentiality and ceiling of care. Writing the scenarios was relatively straight forward but writing the questions and constructing the branches of a 'decision-tree' for the *QuestionMark* application was time consuming.

Once completed the study protocol was approved by the QUB research ethics committee and also submitted to the Cyprus National Bioethics Committee.

As this was essentially a proof of concept study which had to be conducted with in a short timeframe a purposive sample of 10 student volunteers was recruited and informed consent obtained. The students sat the online assessment in one of the computer suites of the medical school library after their own ethics examinations. They were then asked to complete a short questionnaire and take part in a semi-structured interview. Members of faculty were also interviewed regarding their opinions about the assessment.

The students' impressions of the assessments were overwhelmingly positive. They found the online system engaging - some even going as far as to say it had been fun! They appreciated the fact that they were based on clinical scenarios. They also appreciated that the questions followed a logical course and that the reasons for their decisions and the underlying ethical principles were explored. It was felt that the style of the questions fitted well with the problem-based learning courses that they had taken. The facility for in-assessment feedback was thought to be a good aid to learning, suggesting that the method may be of greater use in formative rather than summative assessments.

Much of the students' thought was echoed in the responses from faculty. Again these were generally positive. The automated marking was seen as a great benefit. The Faculty members agreed that the questions with immediate feedback would be best suited to formative assessment. The difficulty of writing high quality questions for ethics assessments was noted.

As a proof of concept study the project was a success: The system allowed the development of a more sophisticated question style, exploring both the students' immediate response and also their underlying reasons. The students felt that it was engaging and easy to use and the faculty appreciated the automated marking facility. Although, as with other modes of assessment for ethics, the question writing process was time consuming. Both students and faculty agreed that the in-assessment feedback had great potential as a learning tool and so the system was ideal for formative assessment. In order to take the project forward it would be necessary to validate the method and compare it with established ethics examinations – especially if it were to be considered for summative assessment.

Going forward, whilst the online ethics examination may be a while away, my visit gave me some useful ideas to develop locally – for example specific ethics OSCE stations. We are about in the middle of a curriculum review and as ethics and professionalism become a clearer theme in the course I appreciate having had the opportunity to see how it is done elsewhere.

Michael Trimble

Belfast

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