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# Assessment of undergraduate medical students' understanding and application of ethics: must do better

Current methods used to assess newly qualified doctors have limited ability to assess reasoning about complex issues. This editorial looks at the points this raises in relation to the new medical licensing assessment.

Medical ethics is an increasingly complex area. In its latest guidance, the General Medical Council (2018) requires that newly qualified doctors must be able to apply their knowledge and skills in a competent, ethical and professional manner, taking responsibility for their own actions in complex and uncertain situations. In addition, the General Medical Council (2018) states that graduates must also be able to:

**'summarise the current ethical dilemmas in medical science and healthcare practice; the ethical issues that can arise in everyday clinical decision-making; and apply ethical reasoning to situations which may be encountered in the first years after graduation'.**

Medical schools have a responsibility to ensure that all students meet all the learning outcomes before graduation, but the best means of assessing the more ethically-orientated outcomes remains uncertain.

## Assessment in ethics

In 2021, the education committee of the Institute of Medical Ethics established a working group to review current practice in UK medical schools with the aim of developing guidelines for best practice. A survey of medical schools was conducted with the support of the Medical Schools' Council. The results of this may be found in an accompanying article (<https://doi.org/10.12968/hmed.2023.0370>). In brief, there was a wide variety of practice in assessment, but the most commonly used methodologies were multiple choice questions and objective structured clinical examinations.

All UK medical students graduating in the academic year 2024–5 will need to pass the General Medical Council medical licensing assessment before joining the medical register. Ethics is one of the areas of professional knowledge that will be assessed by this. The medical licensing assessment will consist of two elements: an applied knowledge test in the form of multiple choice questions, and a clinical and professional skills assessment which may be in the form of an objective structured clinical examination or objective structured long examination record. It is clear then that the assessment modalities that are already used widely to assess ethics feature prominently in future plans. However, this is problematic given the profound limitations of these forms of assessment.

## Limitations of current methods of assessment

The use of multiple choice questions is unsurprising given the ease of marking and the need to fit in with the overall assessment strategy for other subjects, but their use as a mode of assessment for ethics is concerning. This type of question has limited ability to assess reasoning about complex issues (Epstein, 2007). Not only are there difficulties producing multiple choice questions that require inference analysis and application of principles, but the format of testing itself may influence the style of learning so that higher level cognitive

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## Key points

- The importance of medical graduates' professional and ethical responsibilities is recognised in the General Medical Council's *Outcomes for Graduates*.
- The General Medical Council's medical licensing assessment will be the means of testing the core knowledge, skills and behaviours of doctors who want to practise in the UK. However, current assessment methodologies are of limited value in assessing ethical reasoning.
- There is a need to develop new robust assessment methodologies for ethical reasoning.

skills may be neglected (Frederiksen, 1984). Students are often aware of the inadequacy of the assessments and this, along with the fact that ethics accounts for only a small number of items out of the whole multiple choice question paper, may be a disincentive to study the subject.

Objective structured clinical examinations also have limitations in assessing moral reasoning among medical students. A particular difficulty with such behaviour-based assessment is the problem of Machiavellianism, ie the exhibition of socially desirable characteristics in order to achieve personal goals (Hren et al, 2006). Professionalism may be perceived merely as a game to be played (Pinto-Powell and Lahey, 2019).

## Moving forward

Knowledge may be assessed by means of multiple choice questions and behaviours in objective structured clinical examinations but these cannot assess the cognitive processes involved at the levels in between (Witheridge et al, 2019). There is a need to devise an assessment methodology that is, as far as is possible, sophisticated enough to explore the reasoning behind students' initial answers to ethical questions but which is still easy to administer, acceptable to students, and which has a positive effect on future learning. This will require further research and sufficient resources. Until this is done, it is difficult to see how medical schools can assert with confidence and integrity that all their graduating students are meeting all the required learning outcomes in relation to ethics.

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## References

- Epstein RM. Assessment in medical education. *N Engl J Med*. 2007;356(4):387–396. <https://doi.org/10.1056/NEJMra054784>
- Frederiksen N. The real test bias: influences of testing on teaching and learning. *Am Psychol*. 1984;39(3):193–202. <https://doi.org/10.1037/0003-066X.39.3.193>
- General Medical Council. *Outcomes for graduates*. London: General Medical Council; 2018
- Hren D, Vujaklija A, Ivanišević R et al. Students' moral reasoning, Machiavellianism and socially desirable responding: implications for teaching ethics and research integrity. *Med Educ*. 2006;40(3):269–277. <https://doi.org/10.1111/j.1365-2929.2006.02391.x>
- Pinto-Powell R, Lahey T. Just a game: the dangers of quantifying medical student professionalism. *J Gen Intern Med*. 2019;34(8):1641–1644. <https://doi.org/10.1007/s11606-019-05063-x>
- Witheridge A, Ferns G, Scott-Smith W. Revisiting Miller's pyramid in medical education: the gap between traditional assessment and diagnostic reasoning. *Int J Med Educ*. 2019;10:191–192. <https://doi.org/10.5116/ijme.5d9b.0c37>