

Evaluation of undergraduate medical students' self-assessment of reflective writing and in a structured clinical assessment (ISCE)

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Background

Doctors require reflective competencies¹. Self-assessment is beneficial for students developing self-validation skills and tutors identifying student development areas to address.^{2,3} Accurate self-reflection enables clinicians to understand their strengths and weaknesses, to formulate personal learning objectives, gain awareness of their learning styles and a sense of achievement⁴. Having self-belief in one's competencies can be highly motivating. Equally, believing one is incompetent can undermine motivation and lead to poorer engagement^{5,6}. Students' ability to accurately self-assess varies and may impact confidence, mental health or impact on patient safety⁷. It is important to develop the ability of students to accurately self-assess their competencies to maximise engagement and optimise learning.

Summary of Work

Various strategies develop students' ability to self-assess, however before the impact of potential intervention can be evaluated, an understanding of students' current abilities was required. We undertook a pilot study in 2017/8 where year 2 students self-evaluated an assignment before submitting assessment by academic staff. Secondly, students self-assessed performance in their formative Integrated Structured Clinical Examination (ISCE) assessment, in addition to receiving examiner and peer marking and feedback.

Summary of Results

Analysis showed no statistical difference between overall marks awarded by assessor and student. Analysis of individual domains indicated students were more likely to award a lower mark than assessor when the assessor awarded the highest mark for the domain. Students were more likely to award a higher mark than the assessor when assessor awarded the lowest pass mark for the domain. Students significantly underestimated their performance in 1% and in 3% (Reflective writing) and 1.5% (ISCE), the students significantly overestimated performance.

Discussion & Conclusion

The ability to self-assess allows progress from an assessment driven internal process to a process that promotes personal responsibility for achieving required learning outcomes⁸. The results suggest most students could either self-assess their work appropriately, or were reluctant to overestimate their abilities and tend to assess themselves as good or competent. We demonstrated that it is possible to determine which of these categories any student falls.

This study highlights significant issues with regards some students' metacognitive abilities. Some higher performing students were more critical of their work than others. Perfectionism tendencies

can lead to academic burnout⁹ and in the longer-term can have a detrimental effect on mental health^{8,10}. Self-deprecating perfectionism can have a negative effect on academic self-efficacy and ultimately result in academic burnout, therefore it is important to have educational and counselling interventions to improve academic performance and help prevent academic burnout⁶.

Less well performing students can overestimated their competencies and/or quality of their work. This may be due in part because individuals who are unskilled lack the metacognitive ability to realise their incompetence^{8,11}.

Take-home Message

Self-assessment can enhance learning and self-regulation of work. Most students can self-assess correctly, however, borderline students over value their work raising concerns regarding patient safety, whereas higher performing students under value their work raising concerns regarding welfare. Introducing self-assessment and feedback opportunities can help address metacognitive deficits and address patient safety and student welfare concerns.

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