

# A crash course in metacognition: Evaluation of a 5-week study skills programme for struggling students in the first year of medical school

## Abstract

### Background

While undergraduate medical education has recently seen a rise in curricular-level interventions to encourage student-centred learning, support at the level of individual learner development has been under-explored in the literature.

### Principal objectives

The aim of this study was to evaluate a 5-week programme designed to improve the metacognitive learning strategies, or 'study skills', of at-risk first-year medical students at Queen Mary University of London. Primary outcome measures were the impact of the programme on students' academic performance, and student and faculty perceptions of the design and value of the course.

### Methods

A mix-methods approach was undertaken to evaluate the course. Outcomes were measured both quantitatively, in terms of changes in students' assessment performance throughout the year according to course attendance (n=53), and qualitatively, using focus groups (n=4) and an e-mail survey (response n=5) in order to explore student and faculty perceptions of the course.

### Summary of results

Qualitative findings indicated that factors such as fear of stigmatisation formed barriers to initial student engagement with the study skills course. However, students responded positively to measures enhancing the study skills programme's specificity to the medical curriculum; they also valued the supportive learning environment fostered by the course leaders. Students who engaged with the course gained confidence in their ability to use different learning strategies to manage the demands of the medical course. In addition, a high rate of attendance on the course corresponded to significant improvements ( $p < 0.05$ ) in certain aspects of post-intervention assessment scores.

### Conclusion

This 'crash course' in metacognitive development showed promising short-term results, not only in terms of positively impacting students' academic performance, but by supporting students' overall development as self-directed learners. Further investigations are warranted as to the persistence or decay of these changes in the long-term setting as well as the impact of the hidden curriculum on students' development as learners.