

# Improving medical student preparedness for practice in line with the General Medical Council's outcomes for graduates: a pilot study

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## Introduction

The 2018 Outcomes for Graduates<sup>1</sup> highlight non-technical skills as an important part of what should be expected of an F1 (foundation year 1) doctor. However, studies show that medical school graduates have a relative weakness in these areas.<sup>2–4</sup>

There is a growing body of evidence for simulation as a learning tool in recent years;<sup>5</sup> however, greater benefits are observed when simulation environment aligns with clinical practice.<sup>6</sup>

Studies have experimented with applying simulation to non-technical skills<sup>7–9</sup> with great success; however, application of prolonged and repeated simulation to non-technical skills in medical students has not been studied in detail.

## Methods

Each student was asked to self-assess confidence for the eight outcomes from the Outcomes for Graduates<sup>1</sup> domain 9b on their first day placed at South Tyneside District Hospital. They will then be asked to further self-assess confidence after each intervention designed to meet these outcomes: at the end of the Preparation for Practice module, at the end of their assistantship on the wards, and following a simulated 'day in the life of an F1' session.<sup>10</sup> This will allow comparison of which interventions helped most to achieve each outcome and whether the combination has allowed all students to increase in confidence for all outcomes.

The Preparation for Practice module involves a prolonged (3-week), low-fidelity simulation in the form of a virtual ward, and the 'day in the life' session is a high-fidelity immersive simulation. This will allow us to also compare simulation with clinical experience as a method to improve final-year preparedness for practice.

Structured interviews will be conducted on completion of the self-assessment survey to gain further qualitative information to help identify reasons behind students' scoring at each stage.

Students completed the low-fidelity virtual ward simulation in December 2018 and completed their assistantship and 'day in the life' simulations in February 2019.

## Results

The results from the low-fidelity Preparation for Practice block in December 2018 have been encouraging. We saw an increase of confidence in all of the eight outcomes from Outcomes for Graduates 9b, with the mean confidence increase across all eight outcomes being 44.5%. One student reported a 250% increase in their confidence for one particular outcome.

The results for further points of questioning regarding their confidence in the outcomes are pending. We hope to observe further increases in confidence at each stage and compare the difference in increase between simulated interventions and clinical experience. Structured interviews will allow us to explore why some interventions were perceived to increase confidence more than others.

## Discussion and conclusions

Our findings so far suggest that students have engaged deeply with the subject material and feel equipped to put lessons learnt into practice in the ward environment over the next few months. It appears that further innovation and research could explore this method of framing educational courses to improve students' understanding and ability in the skills and attributes required for clinical practice, in particular non-technical skills. We hope this study will provide evidence that specifically targeting these areas significantly improves students' self-assessed preparedness for practice against the Outcomes for Graduates and encourage further work and study in this domain. ■

## References

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