



Does performance at the intercollegiate Membership of the Royal Colleges of Surgeons (MRCS) examination vary according to UK medical school and course type? A retrospective cohort study

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INTRODUCTION

Different medical schools across the UK have different teaching methods, curriculums, course structures as well as assessment methods.¹⁻⁴ According to the General Medical Council (GMC), it is “inevitable” that these differences affect the outcome of a student’s future career path and his or her interests.⁵

OBJECTIVES

In this study, the schools have been split into categories according to variables such as course type and teaching methodology for easier identification of the factors that play a greater role in affecting the performance of the graduates.

The aim of this study is to identify if the medical school a graduate is from has a significant impact on his or her performance in the Membership of the Royal Colleges of Surgeons (MRCS) examination, which is a post-graduate examination for medical graduates looking to pursue the surgical profession.

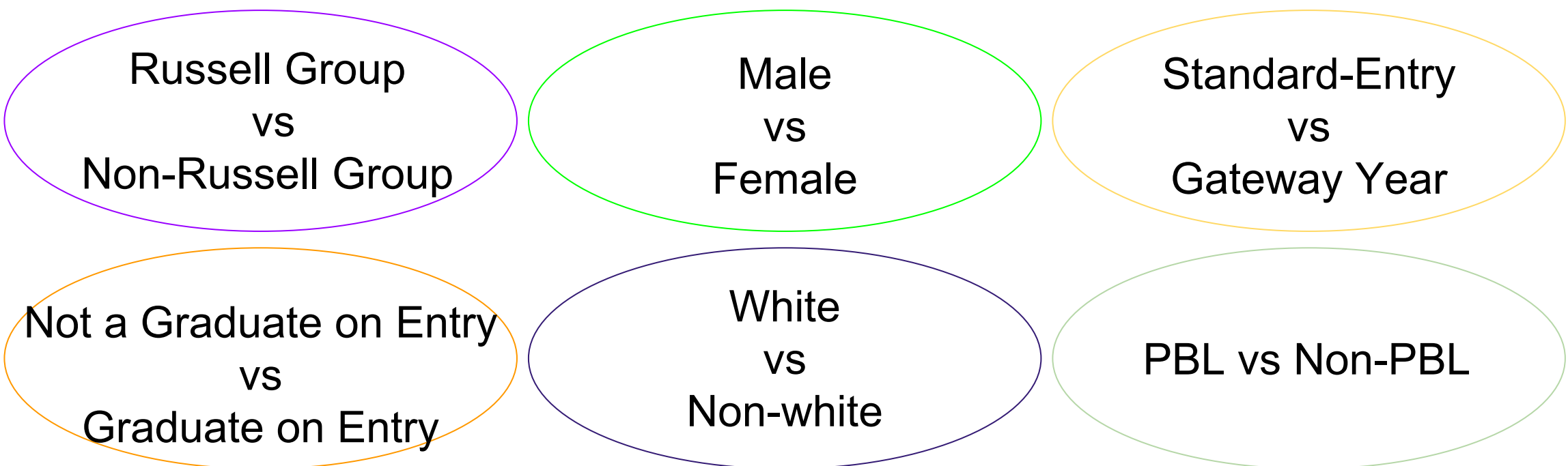
Understanding this relationship between the different medical schools and post-graduate level success would not only allow schools to streamline their curriculum, teaching methods and assessment techniques to produce capable future doctors, it would also allow for pre-university students to identify which medical school would be the perfect fit for them so that they would be able to pursue the post-graduate field of their preference.⁶

METHODS

This was a longitudinal retrospective cohort study. Individual-level linked data of all UK Medical Graduates who had attempted either Part A or Part B MRCS examinations between 2007 and 2017 was obtained from the UK Medical Education Database (UKMED) and the four Royal College of Surgeons of UK and Ireland (Edinburgh, Glasgow, England, Ireland).

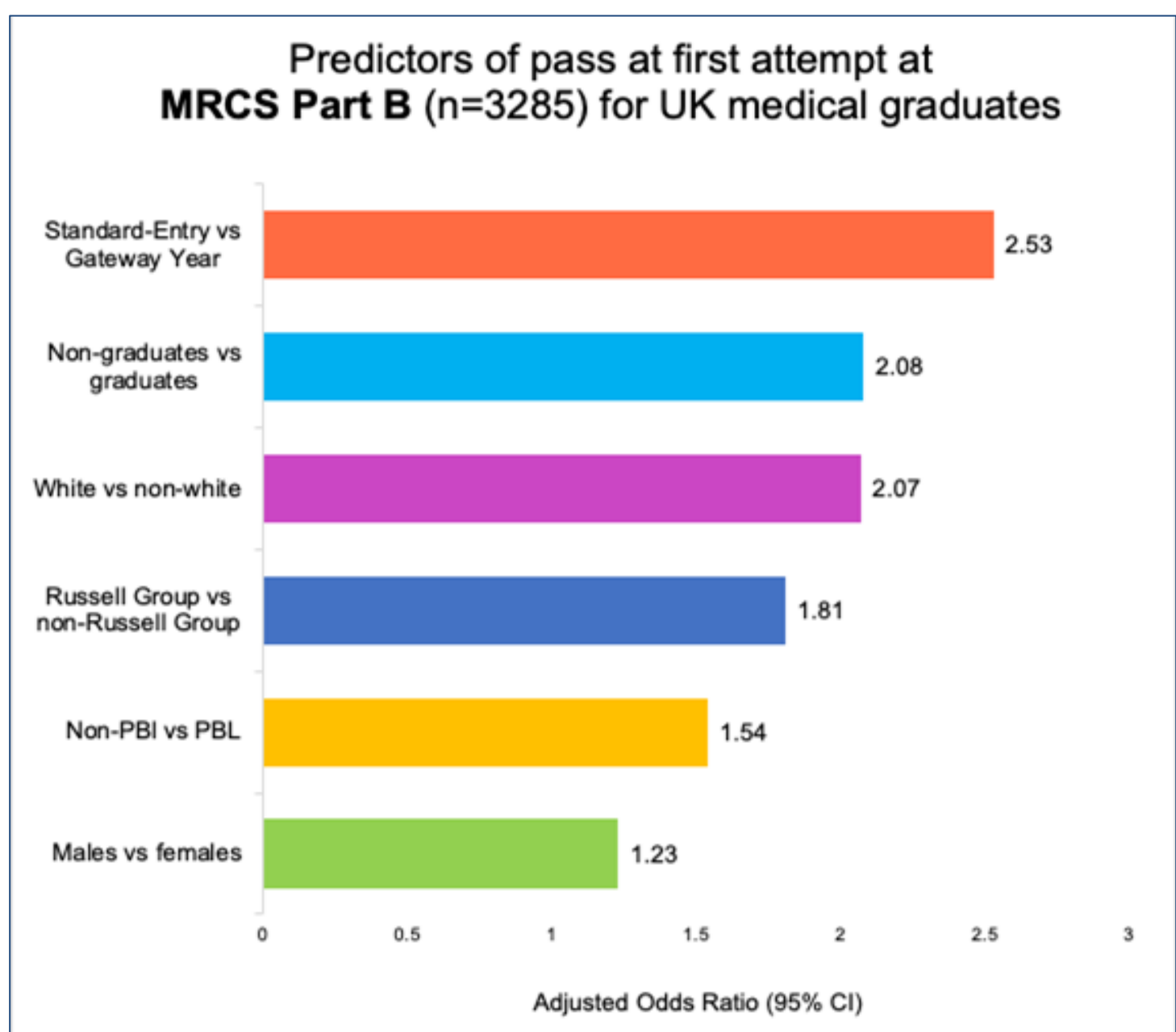
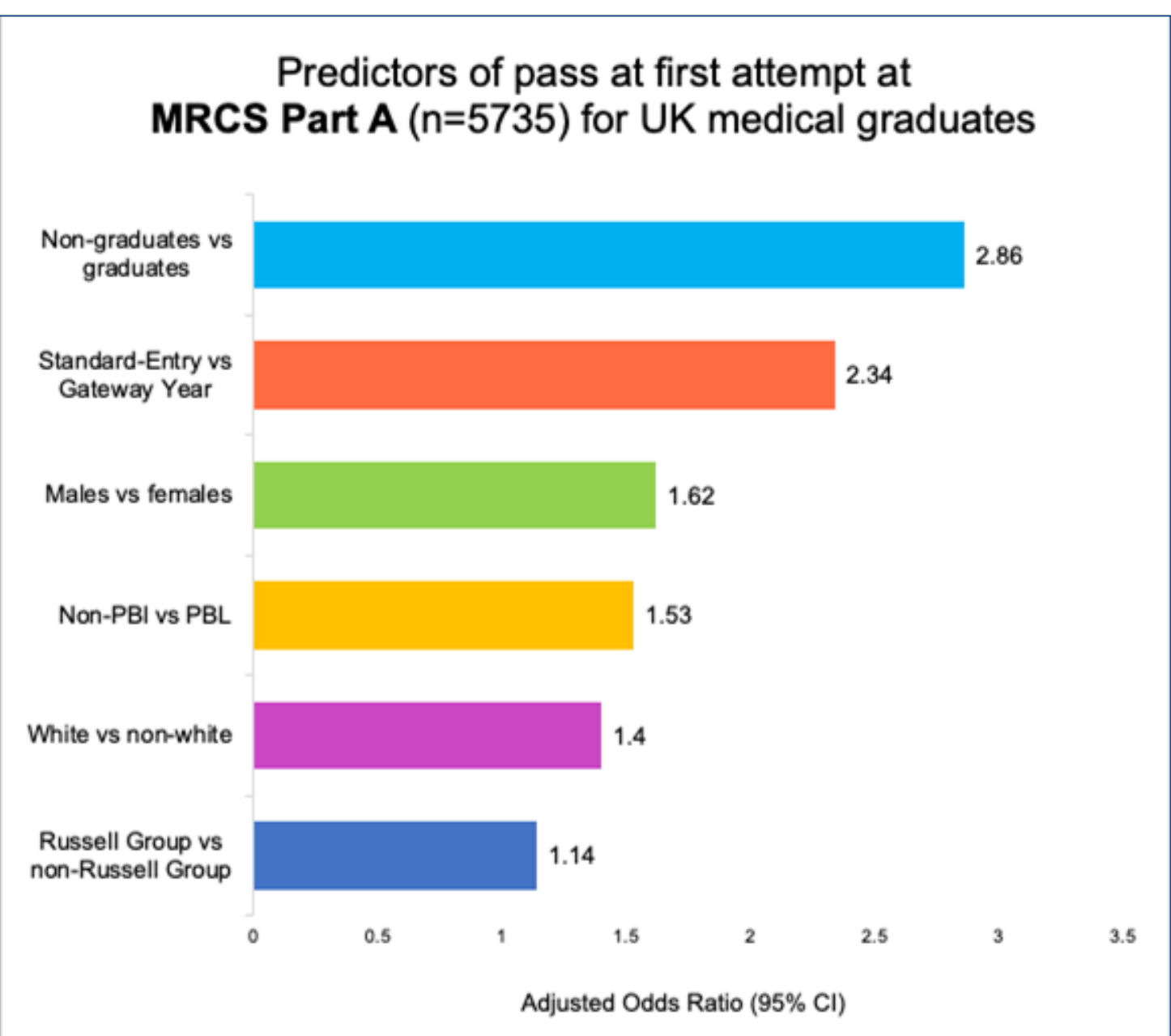
The pass rate in the Part A and the Part B examinations of graduates from 31 UK Medical Schools were compared and adjusted for prior academic achievement. Relation between Medical School ranking and pass rate was investigated as well.

Potential independent predictors of first attempt passes were identified using multi-variate logistic regression models. The study compares:



RESULTS

MRCS pass rates differed significantly between individual medical schools ($p < 0.001$) but not after adjusting for prior A-Level performance. Candidates from courses other than those described as problem-based learning (PBL) were 53% more likely to pass MRCS Part A (OR 1.53 (95% CI 1.25 to 1.87) and 54% more likely to pass Part B (OR 1.54 (1.05 to 2.25)) at first attempt after adjusting for prior academic performance. Attending a Standard-Entry 5-year medicine programme, having no prior degree and attending a Russell Group university were independent predictors of MRCS success in regression models ($p < 0.05$).



DISCUSSION

Our most important finding is the lack of statistically significant difference in MRCS success between medical schools after adjusting for A-Levels as a measure of prior academic attainment.

Implications

The majority of variation in performance between schools on the MRCS at least can be accounted for by individual factors, namely prior academic attainment. There were, however, clear differences in performance by course pedagogy and markers of institutional esteem which can be used by medical schools to optimise the alignment between undergraduate and postgraduate teaching, learning and assessment values in surgery, and by individuals when considering where to apply to study medicine.

CONCLUSION

There are significant differences in MRCS performance between UK medical school course types and pedagogy. However, variation in MRCS pass rates between medical schools is largely due to individual factors, such as the academic ability of individuals, rather than medical school factors.

FULL PAPER



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