

The Relationship between Medical Student Logbook and Clinical Examination Performance

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Background: Logbooks are widely used to evaluate the objectives of the undergraduate medical curriculum on clinical placements. Studies, however, have shown that logbook performance does not always correlate with clinical examination performance. The aim of this study was to examine the relationship between the grades achieved in the logbooks of a third year class and the results they achieved in their clinical examinations. The students rotate through 7 clinical placements on different hospital sites and the logbook used is paper and pocket-sized.

Methods: A retrospective cohort study was carried out on the logbooks of a third year class. The third year class size was 172; analysis was performed on 164 logbooks returned at the end of the academic year. The study calculated an unweighted mean grade for each of the logbooks. These grades were correlated with the corresponding examination results of the “Principles of Medical and Surgical Practice” module which includes a written examination, short case assessment, logbook assessment and Objective Structured Clinical Examination (OSCE). The logbook grades were also correlated with the OSCE results alone. Statistical analysis was carried out using SPSSv24. Ethical approval was granted.

Results: The logbook results were compared to the “Principles of Medical and Surgical Practice” overall results and indicated there was a medium correlation which was statistically significant ($p < 0.01$) with a Pearson Correlation Coefficient of 0.451. A low correlation which was statistically significant ($p < 0.01$) was also found between the logbook results and the result of the OSCE examination with a Pearson Coefficient of 0.361.

Discussion/Conclusion: The correlation between the logbook and the overall examination results is a medium correlation and is therefore higher than the correlation between the logbook and OSCE results which was quite low. The results of the study indicate that the logbooks could provide an indication of how a student will perform in the clinical examinations overall but would not provide a particularly reliable indicator of how a student might perform in the OSCE examination. Further studies may look at the use of an electronic logbook which may reveal a higher correlation with examination performance if the electronic logbook facilitates accurate recording of more frequent encounters on the wards.

