Universiteit Maastricht

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The Borderline Regression Procedure in determining a credible cut-off score.

Abstract:

Introduction

Determining a pass-fail score for OSCEs is not easy. Especially when large numbers of students have to be tested and equivalent parallel test circuits are needed. In 2003 the borderline regression method (BR) (ref) was studied at the National Centre for Evaluation of Postgraduate Training in General Practice. They concluded that the BR is more reliable and credible than the Angoff method.

Their research, however, was in the field of postgraduate medicine and it did not involve equation between different circuits.

Our aim was therefore to evaluate the reliability and credibility of the BR in an undergraduate curriculum with parallel circuits.

Methods

80 fifth-year students at the medical faculty of the Maastricht University sat an OSCE with 9 stations in two parallel test circuits. The current pass-fail score was set by the mean minus the 0.5 standard deviation with two absolute cut-off scores (50% and 70%).

Results

The BR results did not differ substantially from the current standards, but the results of the parallel circuits were much more comparable than with the current system.

Conclusions

As differences in mean scores between parallel circuits are most likely the result of differences in difficulty of the stations the BR yields more reliable pass-fail decisions. The BR is more credible than the current system

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