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Preadmission requirements as predictors of preclinical success for Dentistry students at the University of the Witwatersrand



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ABSTRACT

The purpose of this research was to assess the predictive capacity of pre-admission requirements on the success of first year dentistry students in Prosthodontics and Operative Dentistry pre-clinical techniques courses. Admission criteria currently used at Wits University consist of National Senior Certificate (NSC) and National Benchmark Tests (NBT). These variables only assesses students' cognitive ability. However, dental training requires both cognitive and non-cognitive skills. The four subjects of focus in NSC were, Mathematics, Life Sciences, English, and Physical Sciences. The three core-domains of the NBT were: Academic Literacy, Quantitative Literacy and Mathematics. The NBT and NSC variables were correlated with those of Prosthodontics and Operative Dentistry pre-clinical techniques, respectively. NSC Mathematics and Life Sciences were found to be significant predictors of student's performance in Prosthodontics, where a unit increase in Mathematics and Life Sciences significantly increase the prosthodontics score by 0.20 and 0.17, respectively. NSC was found not to predict success in Operative Dentistry. NBT's Quantitative Literacy was a significant predictor of Prosthodontics score at p-value=0.007. Students' who perform better in Quantitative Literacy, Mathematics, and Life Sciences have a greater chance of performing better in Prosthodontics, however all these correlations proved to be weak. This indicates that there is a need for an additional preadmission assessment tool for practical ability.