

The validity of oral assessment (viva) that assesses specific and unique competencies in a post-graduate psychiatry examination

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Background

Studies have criticized oral assessments for having poor validity and reliability. There is limited research on structured oral assessments that assess specific competencies.

Aims

To evaluate the validity of the oral assessment component of a postgraduate psychiatry examination.

Methods

A retrospective analysis of the examination scores of 154 candidates from 12 postgraduate psychiatry examinations conducted during an 8 year period was carried out. Concurrent and construct validity was examined by correlating marks at the viva with the marks of theory, clinical long case and clinical short case components of the candidates. Separate multiple regression analyses were conducted to predict the scores of the different components of the examination.

Results

Repeated measure ANOVA showed there was no significant difference in the means between the

different components of the examination ($F=0.49$, $p=0.486$). The viva was a sensitive method of assessment ($79/88=89.7\%$) but the specificity was low ($36/66=54.5\%$). Positive predictive value was 72.5% and the negative predictive value was 80.0%. Logistic regression analysis showed that the odds of passing the viva and passing the examination compared with passing the viva and failing the exam was 10.53 (95% CI 4.54- 24.47). There was a statistically significant, moderately high correlation between viva and theory components ($r=.50$ $p<0.001$). Multiple regression models showed that viva marks were a predictor of performance at the clinical short case and theory components but not the clinical long case.

Conclusion

Viva had good sensitivity and positive and negative predictive values. Instead of discontinuing the use of oral assessments, ways should be identified to improve the reliability and validity of the oral assessment.

SL J Psychiatry 2012; 3 (2):16-19

Introduction

Oral assessment (viva voce) is a component of many undergraduate and postgraduate examinations in medicine. They are also used in assessments for recruitment to medical schools, jobs and career promotions for medical personnel in many countries.

The format of oral examinations is not uniform. Oral assessments can be used as a method of testing knowledge of a specific subject area. These types of oral assessments mainly test recall and are often unstructured. Other oral assessments are used in testing clinical competence. They use hypothetical case scenarios or case vignettes, video-taped patient encounters or real patients to test clinical competence. Variability of the examination is high when questions are not structured. The duration of the oral assessments too vary ranging from a few minutes to one to two hours.

Studies have criticized oral assessments for having poor validity and reliability (1-6). This criticism has led to many professional bodies abandoning or modifying the traditional oral examinations. The validity and reliability of oral examinations can be increased by the use of structured, standardized orals and by training examiners (7). Increasing the examination time and number of examiners is also known to improve reliability of the oral assessment. For oral assessments

based on clinical cases, reliability increases from 0.5 for a one hour assessment to 0.69 for a two hour assessment (8,9). Wass et al. have shown that increasing the duration of the oral assessment, thereby increasing the number of topics examined, and increasing the number of examiners could improve reliability (10). The reliability of using global judgments, appeared to be better than the reliability of averaged item scores (11). Kearny et al. reported that use of a structured oral examination format and global rating scales resulted in fair to good intra-rater and inter-rater reliability (12).

However, except for a few qualitative studies, we could not find quantitative studies on oral assessment that assessed specific competencies such as emergency and acute care management, which cannot be assessed using most other types of assessment such as written and clinical examinations (13).

The aim of this study was to evaluate the validity of a structured oral assessment that mainly assessed emergency and acute care management in the Postgraduate MD Psychiatry examination in Sri Lanka.

Method

Oral assessment is a component of the Postgraduate MD Psychiatry examination in Sri Lanka. Each candidate is examined by two examiners. The candidate