

The Experience on Radiological Training for Consistency of Direct Observation of Procedural Skills

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Abstract

The purpose of this study is to formulate standardized score criteria by Direct Observation of Procedural Skills(DOPS), to establish reliability and validity for checklist and consistency training of scorer, to elevate performance for training and learning. Comparing reliability and validity of checklist for 2 evaluation subjects(mask making、block making), and collect consistency training results from 15 clinical teachers who watch training videos respectively, 25 medical interns and 4 PGY trainees who make training video. Study results shows: (1) the agree level in record checklist for both subjects are close to 80%, and it matches with correctness and suitability, which indicates checklist is provided with Expert Validity; the Cronbach's α ratio are 0.848, 0.787 respectively, which reach the acceptable criteria for reliable checklist. (2) Pre-score and post-score for training video has 0.83($P < 0.005$) and 0.87($P < 0.001$) in Pearson correlation coefficient, which shows it is significant positive correlated for 15 scorers and with good consistency. (3) Reliability analysis for side shot video made by Medical interns: Kappa(K) coefficient of agreement: 0.83 and 0.87, Kendall's W value: 0.328($P < 0.01$) and 0.032($P < 0.01$), ICC(α) intraclass correlation coefficient: 0.83 and 0.87. (4) Reliability analysis for side shot video made by PGY trainees: Kappa(K) coefficient of agreement: 0.92 and 0.86, Kendall's W value: 0.45($P < 0.00$) and 0.39($P < 0.00$), ICC(α) intraclass correlation coefficient: 0.92 and 0.86.

Keywords: Reliability, Validity, Consistency

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