

Reliability of a scoring algorithm for the Motivational Communication Competency Assessment Test (MC-CAT)

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Background: The importance of physician training to support lasting health behaviour changes in patients suffering from chronic diseases is an emergent research topic. However, existing evaluation tools are complex, invasive, time consuming, and impractical for use within the medical context.

Objective: This study sought to validate the scoring algorithm and the classification scheme of the Motivational Communication (MC) competency assessment tool with an international panel of behaviour change experts.

Methods: In a 2-stage process, fourteen international experts were presented with dialogue exchanges (6-7 per case) between a physician and 3 separate “patients”. They were asked to rank order the physician statements from most to least consistent with MC competency and to identify which of the 11 components were presented in each statement. After a preliminary analysis of the results and modification of the statements, experts were asked to redo the task.

Results: Initial percentage of agreement between our classification and the experts for rank order of responses across all 3 cases was 60.9±14.0% (range 37.1 to 84.3%). The component identification agreement across all 3 cases was 44.9±8.4% (range 30.5 to 60.2%). After making 22 changes in the dialogue exchange, the agreement for the rank order (87.6±16.8%, range 16.7 to 100%) and the component identification (78.1±14.3%, range 48.6 to 100%) increased significantly from stage 1.

Conclusion: These results demonstrate good response agreement across the 3 cases and 11 competencies. The next step will be to expand the case bank, with “new” cases retaining the same initial base structure but varying the patient’s socio-demographics, chronic disease, behavioural target, and personal information.

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