The McMaster Modular Assessment Program (McMAP): A Theoretically Grounded Work-based Assessment System for an Emergency Medicine Residency Program

Reference:

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Background
As the authors note, post-graduate training programs, especially in a CBME-based era, need frequent assessments by faculty. And to the extent possible, the assessments should be criterion-based and authentic because ultimately what program and the public want to know is what the learner can “do” upon completion of the GME program.

Purpose
The purpose of this study was to investigate a new approach to work-based assessment, the McMaster Modular Assessment Program (McMAP) in emergency medicine training. This approach takes a much more tailored approach to assessment based on key tasks in emergency medicine combined with global
assessment of an emergency department shift. The authors used the Completed Clinical Evaluation Report rating (CCERR) tool to judge assessment quality pre and post the implementation of the McMAP.

**Type of paper**

Research: pre-post evaluation of faculty evaluations of residents

**Key Points on the Methods**

1) The process to develop the task specific tools appears to be rigorous and employed a step-wise process. As the authors describe, the McMAP tools were analogous to “micro-miniCEXs” and 42 in all were included in the final set

2) Most of the tools start with a checklist (38/42), followed by a 7-point scale. The rationale for a 7 point scale is not provided

3) The scale used on the forms was developmental in design, but only three points along the 7 point scale were defined by descriptors

4) A global rating was also performed by faculty at the end of the resident’s shift in the ED

5) Using a sample of assessment from 15 residents, the quality of assessments was compared pre-post implementation of the McMAP instruments. The CCERR scores increased substantially with the McMAP tools. It appears because the forms changed substantially that blinded review was not possible. If true, this raises the possibility of bias given the first and second authors completed the CCERRs

6) The authors acknowledge that while the McMAP system is generating substantial numbers of data points, it is not yet clear how best to synthesize all the granular information into holistic, developmental judgments

**Key Conclusions**

The McMAP system, building on assessment theories and focusing on authentic, work-based assessments, lead to improvements on assessment quantity and quality. However, many tools (42 studied) were created leading to challenges in how all this granular information becomes synthesized into a more holistic judgment.

**Spare Keys – other take home points for clinician educators**

Consistent with other trends, the McMAP approach is an example of moving away from the use of generic rating scales and forms for tools better aligned with the tasks of the profession. This approach allows for “mapping” of the assessments onto the discipline and curriculum in a potentially more meaningful way. However, the
“reductionism” associated with this granular task approach necessitates equally robust processes to synthesize multiple data points into meaningful holistic judgments.

**Shout Out**

Rigorous design in creating the tools, the use of discipline mapping and tasks, and using a program-based approach to assessment.