Multisource feedback and self-assessment of the Communicator, Collaborator, and Professional CanMEDS roles for Diagnostic Radiology Residents

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Background

- The Royal College of Physicians and Surgeons of Canada requires that each residency program evaluate their trainees in the Communicator, Collaborator, and Professional CanMEDS roles.

- These roles are difficult to evaluate and it is hard to obtain input from peers and coworkers.
Background

- The ability to self-assess facilitates life-long learning, and is an important skill for physicians.
- At present, there is limited opportunity for formal self-assessment in the University of Toronto Diagnostic Radiology residency program.
The purpose of this study was to:

- Develop a multi-source feedback (MSF) tool to evaluate residents in the Communicator, Collaborator, and Professional CanMEDS roles.

- Provide a mechanism for residents to complete a self-assessment and compare it with feedback obtained from peers and coworkers.
Methods

Participants:
- 46 postgraduate year 2 to postgraduate year 5 trainees from the University of Toronto Diagnostic Radiology residency program

Experimental design:
- Residents submitted names and e-mail addresses of 13 potential evaluators from their last 6 months of rotations according to the following minimum requirements:
  - 4 technologists or nurses
  - 1 hospital site secretary or program assistant
  - 4 resident peers or fellows
  - 2 staff radiologists (excluding rotation supervisors)
  - 2 collaborating physicians
Methods

- Residents chose their own evaluators to ensure that they were being assessed by someone who had adequate knowledge of their performance.

- An electronic survey was sent to each evaluator.

- The survey used a 5-point Likert scale to assess four questions for each CanMEDS roles being assessed.
Methods

- Residents completed the same survey put into first person narrative (self-assessment)

- MSF scores were correlated with the residents’ in-training evaluation reports (ITERs) for the Communicator, Collaborator, and Professional CanMEDS roles from the past 6 months of rotations

- MSF scores were also compared with residents’ self-assessment
# Multisource Feedback Survey

## Table 1: Multi-source feedback evaluation prompts

<table>
<thead>
<tr>
<th>Communicator</th>
<th>Collaborator</th>
<th>Professional</th>
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<tbody>
<tr>
<td>1. Speaks clearly and concisely when communicating with colleagues, administrative staff, allied health professionals and/or patients</td>
<td>5. Participates effectively and appropriately in an interprofessional healthcare team</td>
<td>9. Demonstrates responsible work habits, enthusiasm and motivation</td>
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<tr>
<td>2. Demonstrates timely communication of information</td>
<td>6. Ability to act as a helpful and approachable consultant</td>
<td>10. Presents oneself as a professional in appearance</td>
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<td>3. Is able to listen effectively and synthesize information</td>
<td>7. Effectively works with health professionals to prevent, negotiate and resolve interprofessional conflict</td>
<td>11. Demonstrates integrity, honesty, compassion, and respect for others</td>
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<tr>
<td>4. Demonstrates high quality of written communication (including e-mail communication, radiology reports)</td>
<td>8. Respects team ethics including confidentiality, resource allocation and professionalism</td>
<td>12. Demonstrates awareness of own limitations</td>
</tr>
</tbody>
</table>
Results – Response Rates

- 683 evaluations were sent to 216 unique evaluators with an overall response rate of 73% (average of 13.43 evaluators/resident)
- Site secretaries and program assistants were mostly likely to respond and collaborating physicians were least likely to respond
- 87% of evaluators completed between 1 to 3 evaluations

Figure 1. MSF response rate by evaluator position
Results – Differences by Evaluator Position

- Residents were most likely to receive their best rating from a collaborating physician and their worst rating from a site secretary or program assistant for all three roles.

- The ratings from different groups of evaluators were only weakly correlated.

![Figure 2. Mean MSF scores by evaluator position](image-url)
Results – Differences by Evaluator Position

- Self-assessment scores were significantly lower than MSF scores from technologists/nurses, resident peers/fellows and collaborating physicians

**Figure 3.** Differences between self-assessment and MSF scores
Results – PGY level and site affiliation

- There were no significant differences between the scores of residents in different PGY years.
- There were no significant differences between the scores from evaluators at different sites.
Results – MSF scores vs. ITER scores

- For the MSF data, there was a strong correlation between the scores for the three CanMEDS roles and there was a strong correlation between the scores of different evaluators.

- Similarly, for the ITER data, there was a strong correlation between the scores for the three CanMEDS roles and there was a strong correlation between the scores of different rotation supervisors (i.e. ITER evaluators).

- However, there was only a weak correlation between the MSF and ITER scores.

Figure 4. Correlations between the MSF and ITER scores

NOTE: Ovals represent the shape of the corresponding scatter plot, and shading represents strength of correlation.
Conclusions

- MSF is a useful tool as it provides feedback and scores relating to the Communicator, Collaborator, and Professional CanMEDS roles that are not necessarily reflected in the residents’ ITER.

- The addition of the self-assessment to the MSF tool provides an opportunity for residents to compare the accuracy of their assessment to improve their life-long learning skills.
Future Research

- Repeat the MSF process annually to determine if residents score higher in the Communicator, Collaborator, and Professional CanMEDS roles as they progress through the residency program.

- Repeat the resident self-evaluations annually to determine if residents are more accurately able to self-assess as they progress through the residency program.
References


