Evidence-Informed Facilitated Feedback: The R2C2 Feedback Model

Joan Sargeant, PhD*, Heather Armson, MD, Erik Driessen, PhD, Eric Holmboe, MD, Karen Könings, PhD, Jocelyn Lockyer, PhD, Lorna Lynn, MD, Karen Mann, PhD, Kathryn Ross, MSc, Ivan Silver, MD, Sophie Soklaridis, PhD, Andrew Warren, MD, Marygrace Zetkulic, MD, Michelle Boudreau, MA, Cindy Shearer, PhD

*Corresponding author: joan.sargeant@dal.ca

Abstract

Introduction: While feedback continues to pose challenges, new understanding is emerging. Feedback is now being seen as an interaction in which learner engagement, supportive relationships, reflection, and cooperative planning are important. In response and through research, we developed and tested the R2C2 model and teaching materials to support its use.

Methods: R2C2 is an evidence-based reflective model for providing assessment feedback. It includes four phases: (1) relationship building, (2) exploring reactions to the feedback, (3) exploring understanding of feedback content, and (4) coaching for performance change. It provides a strategy for facilitating feedback conversations that promote engagement with performance data and enable coaching for improvement. This package of educational materials includes paper-based and video resources designed to support interactive learning and skills development in facilitating feedback and coaching. Specific strategies are described and demonstrated for each phase of the R2C2 model and include a learning change template for the coaching phase. Resources can be used by an individual or group. A workshop outline with presentation slides and a practice scenario are also included.

Results: Through research, invited and peer-reviewed presentations, and feedback from colleagues who have used the materials and the R2C2 model, we have learned that the model is intuitive and easy to use, that it can engage the learner and support coaching, and that the educational materials are clear and useful.

Discussion: The model is intuitive, especially within competency-based education, is easy to follow, and makes sense to faculty, which makes it easy to implement in most programs.

Keywords

Feedback, Assessment, Coaching, Milestones, Competency-Based Medical Education, CBME, Improvement, Evidence-Based, Learning/Change Plan

Educational Objectives

By using the R2C2 model, supervisors will be able to:

1. Develop a relationship and rapport with residents.
2. Explore residents’ reactions to their feedback and promote their acceptance of feedback and assimilation with their own self-assessment, especially when the feedback is disconfirming.
3. Assist residents in understanding both the content of their feedback and the standards or milestones against which they are being measured.
4. Coach residents in identifying performance gaps, setting learning and improvement goals, developing and implementing realistic plans to address these, and assessing the plans.

Introduction

The R2C2 is an evidence-based reflective model for providing assessment feedback in residency education. It supports supervisors in engaging residents in a conversation about their assessment data...
and feedback. The goal is to guide feedback interactions and coaching between supervisor and resident during formal and informal assessment feedback sessions. The intended audience is clinical supervisors and preceptors who normally provide formal and informal assessment feedback to residents. The model is especially intended for use when discussing residents’ written assessment reports. It may be especially useful for program directors in their regularly scheduled assessment review and progress meetings with residents. There are no prerequisite knowledge, skills, or experience required. Training videos and materials have been developed.

The R2C2 model is the result of a progressive program of research exploring the inadequacies of self-assessments and the challenges inherent in seeking, receiving, assimilating, and using external data and feedback to inform one’s self-assessment and performance improvement. While the intent of formative performance assessment and feedback is quality improvement and enhanced performance, recent studies of students’, residents’, and physicians’ responses to formal performance feedback demonstrate that feedback is not always accepted or used. Reasons for this include inconsistency of the data with recipients’ own perceptions of their performance, concerns regarding data credibility, contextual factors, and perceived barriers to data use and practice change. In response, we developed an evidence- and theory-informed reflective model for facilitating performance feedback use and practice improvement.

Additional research on the implementation of workplace-based assessment with residents has demonstrated that assessments and feedback may not be taken seriously by residents or found useful. This occurs for various reasons, including lack of engagement of faculty, inadequate observation, lack of clarity concerning performance standards or milestones, and nonspecific feedback that does not point to a way to improve. Residents report receiving limited performance feedback and feedback that is not useful due to lack of specificity, clear performance standards, or timeliness. Additionally, workplace culture, context, and relationships impact assessments and feedback.

Workplace-based assessment in residency education has developed in recognition of both the rich and varied learning that occurs there and the idea that for residents to benefit optimally from such learning, effective means of assessing learning and providing feedback are critical. Congruent with its adoption are the introduction and widespread adoption of competency-based education and assessment, which rely on learners receiving regular feedback to enable them to progress through the various milestones to achieve competency. Numerous instruments have been developed to foster direct observation and facilitate feedback, and it is increasingly common for multiple assessments of residents to be required.

Notwithstanding these developments, recent literature suggests that residents still report receiving suboptimal feedback that diminishes the impact of the feedback and the resident’s motivation and ability to improve. Equally important is the recognition that for competency-based medical education to be fully realized, mentoring and coaching have to enable learners to identify their needs for improvement and plan and make changes to address those needs.

The model includes four phases: relationship building, exploring reactions to the feedback, exploring understanding of feedback content, and coaching for performance change. The model is referred to as the R2C2 feedback model. We first developed the content for each of the four phases in the model and the phrases used with each from a review of the theory and research informing effective feedback practices and coaching for change. We then tested the phases and the phrases through formal performance feedback sessions with physicians. Testing confirmed the model with slight modifications and additional phrases. We are currently finalizing testing the model with residents.

**Methods**

We provide multiple educational materials, paper-based and video, to support learning about and practicing the skills described in the R2C2 feedback model and its phases. From an educational perspective, providing multiple methods enhances skill learning and enables learners to select the resources most helpful for them. The trifold brochure, facilitation strategies document, and Resident Learning Change Plan are resources developed and tested through research. Educational materials include the following and are described below:
The R2C2 Resident Feedback Model Trifold Handout (Appendix A) briefly describes the four phases of the R2C2 facilitated feedback model and provides sample phrases for each phase. The Resident Learning Change Plan (Appendix E) is used with the coaching phase of the R2C2 model to help learners develop a plan to address their feedback results. The R2C2 Instructional Video (Appendix B) describes the model and the four phases. We suggest viewing the video while reviewing the trifold handout and, during the last phase (coaching), also reviewing the Resident Learning Change Plan. Then watch the R2C2 Milestones Demonstration Video (Appendix C) with the trifold handout and Resident Learning Change Plan. The Strategies for Facilitated Feedback and Coaching document (Appendix D) contains additional phrases and strategies for facilitating feedback, especially when difficult. This document can be used to supplement the trifold handout and videos and to provide additional phrases that may be helpful when providing feedback.

The last four materials listed are for interactive group workshops. They provide workshop objectives and outline (Appendix F), slides (Appendix G), a case scenario for role play or demonstration (Appendix H), and a sample script for demonstration of the case and use of R2C2 (Appendix I). Tips for using the materials are provided in the workshop outline and slides. Other materials discussed above can also be integrated into group workshops.

The materials required for learning are the ones listed above. The time required for review of the trifold handout and the video files is about 20-30 minutes, with another 15-30 minutes of additional time to review and, ideally, practice the strategies for facilitated feedback and coaching, for a total time commitment of approximately 45 minutes.

Individuals can learn about the model on their own or in a group by using the documents, videos, and slides. Group learning enables sharing of experiences and observations. The faculty/facilitators instructing about the model need to be familiar with it and prepared to share their experiences providing feedback to residents. Learning is enhanced by providing role-playing scenarios that encompass common feedback challenges within a program. Feedback we have received indicates training is beneficial when following the above-suggested guidelines for use of the materials provided.

**Results**

We have tested the feedback model for acceptability and efficacy with volunteer physicians who received formal performance and their facilitators using video- and audiotaped data of their feedback sessions. Based on the positive results, we are currently testing the model with residents (n = 51) receiving formal performance feedback and their supervisors in five different programs and three countries, using a case study methodology. Our team has also formally trained 27 supervisors in use of the R2C2 model. Team members have made a large number of invited and peer-reviewed presentations on the model in the US, Canada, and Europe. As a result of these presentations, the model is being informally adopted and used internationally by numerous groups and individuals who wish to enhance residents’ and physicians’ use of feedback. The feedback we get is that the R2C2 model is intuitive, is easy to follow, makes sense, and enables fruitful interactions with leaners and physicians about their performance data and feedback.

We will provide final results on the residency research on the R2C2 model when the study is complete in the summer of 2016. Preliminary analysis of qualitative data is generally positive. Residents and faculty
representative comments include the following:

- “Good to have evidence-based feedback.” (Resident)
- “I think the learning change plan basically was . . . like . . . a destination. And now we have a map to take us there. That’s how I would sum it up.” (Resident)
- “Any program will benefit from this kind of feedback session. And everyone . . . individually as well as overall program will benefit from this kind of action plan as well as the feedback session.” (Resident)
- “I think also because you tried to make a plan to improve it, it’s less harsh right from the beginning. Because again, it’s not just saying, oh, this is what you have to work on, go fix it.” (Supervisor)
- “[The model] is easy enough to learn and master. You know, it really only takes, you know, by the second one you’ve done, like okay, I see how this goes. And then you sort of change. . . . It’s focusing on an outcome.” (Supervisor)
- “This was more specific as to what the goals are for the future as opposed to vague generalizations.” (Resident)
- “It’s very concise. It tells you what to improve, how to improve, and when to improve it, and what’s going to be your measurable goals. So it’s pretty good and realistic.” (Resident)
- “It met more than my expectations. I find it more collaborative, more educational and more productive.” (Resident)
- “I mean I would agree with this thing . . . when I set my goal by myself and I have a certain deadline that my performance will definitely go up because I want to perform. I’m self-evaluating myself. So I like this point because it is all about self-evaluation rather than other people evaluating you.” (Resident)

Discussion

A tip for success is noting that the model does present an approach differing from traditional ways of giving feedback, such as the unidirectional, top-down delivery or the feedback sandwich. It helps to emphasize that the goal is really helping the learner to change and improve and engaging the learner in a reflective conversation about the feedback and how he/she can improve. Using a coaching approach, which engages the learner in his/her change plan, seems to be one that is working.

The model is intuitive, especially within competency-based education, is easy to follow, and makes sense to faculty, which makes it easy to implement in most programs. It has been well received by both faculty and residents. We suggest users seek out feedback leaders who are willing to champion this new model in their organization. The R2C2 model emphasizes the main goal of feedback, which is to help the learner change and improve. Using a coaching approach that engages the learner appears to be working. Inform residents about the model and why it is being used, especially in competency-based education, and engage them in studying it and providing feedback on it.

A limitation is that the time commitment required to conduct a feedback session using the R2C2 model is longer than the time commitment for a brief feedback session, which may be challenging in some programs. Faculty and residents saw the value in the more in-depth conversation but did raise concerns about having time to conduct feedback sessions of that length on a regular basis with all residents in the program. Another limitation, also due to time constraints, is enabling busy faculty to find time to attend an R2C2 training workshop. Also, the R2C2 model is a different form of feedback than supervisors are used to implementing, which can create a sense of awkwardness early on.

Further revisions to the model will be informed by our ongoing study, finishing in the summer of 2016.
Heather Armson, MD: Assistant Dean, Department of Continuing Professional Development, University of Calgary Cumming School of Medicine; Associate Professor, Department of Family Medicine, University of Calgary Cumming School of Medicine

Erik Driessen, PhD: Professor of Medical Education, Maastricht University; Chair, Department of Educational Development and Research, Faculty of Health, Medicine, and Life Sciences, Maastricht University

Eric Holmboe, MD: Senior Vice President, Milestones Development and Evaluation, Accreditation Council for Graduate Medical Education

Karen Könings, PhD: Assistant Professor, Department of Educational Development and Research, Faculty of Health, Medicine, and Life Sciences, Maastricht University

Jocelyn Lockyer, PhD: Professor, Department of Community Health Sciences, University of Calgary; Senior Associate Dean of Education, University of Calgary Cumming School of Medicine

Lorna Lynn, MD: Director, Department of Assessment and Research, American Board of Internal Medicine

Karen Mann, PhD: Professor Emeritus, Division of Medical Education, Dalhousie University Faculty of Medicine

Kathryn Ross, MSc: Research Associate, Department of Assessment and Research, American Board of Internal Medicine

Ivan Silver, MD: Vice-President of Education, Centre for Addiction and Mental Health; Professor, Department of Psychiatry, University of Toronto Faculty of Medicine

Sophie Soklaridis, PhD: Scientist, Centre for Addiction and Mental Health; Head of Research, Innovation, and Scholarship in Education, Division of Psychotherapies, Humanities, and Education Scholarship, Department of Psychiatry, University of Toronto Faculty of Medicine

Andrew Warren, MD: Associate Professor of Pediatrics, Dalhousie University Faculty of Medicine; Associate Dean of Post Graduate Medical Education, Dalhousie University Faculty of Medicine

Marygrace Zetkulic, MD: Associate Program Director, Department of Internal Medicine, Saint Peters Hospital, Rutgers New Jersey Medical School

Michelle Boudreau, MA: Evaluation Specialist, Continuing Professional Development Office, Dalhousie University Faculty of Medicine

Cindy Shearer, PhD: Evaluation Coordinator, Postgraduate Medical Education, Dalhousie University Faculty of Medicine

Disclosures
None to report.

Funding/Support
2014-2016: National Board of Medical Examiners Stemmler Foundation, Philadelphia, PA. $150,000.

Ethical Approval
This publication contains data obtained from human subjects and received ethical approval.

References