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Use of Multisource Feedback to Improve Interdisciplinary Care Among Oncologists

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DESCRIPTION OF THE PROBLEM

Providing effective care to patients with cancer relies upon coordination between physicians outside of one's own subspecialty. Such interactions will most likely be successful if all parties have a clear understanding of their colleagues' expectations and values [1]. Multisource feedback, also known as 360 degree or multirater feedback, has been used in the medical setting to provide an assessment of an individual by two or more individuals of different disciplines [2–7]. However, due to the small size and intimate nature of multidisciplinary oncologic teams, acquiring and delivering honest and constructive interprofessional feedback may be particularly challenging [8]. No studies have investigated optimal methods of doing so besides nondescript evaluations of conferences, presentations, or tumor boards, and no validated oncology-specific instrument exists [9,10].

WHAT WE DID

In this pilot study, we assessed the feasibility and perceived value of a novel performance feedback tool among all 39 physicians in medical oncology, surgical oncology, radiation oncology, and palliative care at a single institution. An initial electronic survey instrument was sent to each physician, asking them to describe in a free-text format their opinion(s) on the (1) strengths, (2) weaknesses, and (3) suggestions for improvement of the other three (but not their own department). To preserve anonymity, the survey specifically asked participants to refrain from naming individual physicians in their responses, but encouraged them to consider their experiences working with individual physicians when giving feedback to the department as a whole. For each department, participants were encouraged to evaluate physicians' attitudes, professionalism, respect for peers, communication skills, attention to cost of care and survivorship, and appropriate end-of-life care. We then organized the feedback given for each department in the initial survey into categories (eg, clinical care,

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communication, workflow, discussing prognosis or palliative care, and other) and sent this department-specific feedback to all of the physicians in each department along with a follow-up survey to evaluate the perceived usefulness of the feedback that participants received and their views on the concept of the project as a whole. The follow-up survey employed multiple-choice, free-response, and 5-point Likert-type scale questions (1 = strongly disagree, 2 = disagree, 3 = neutral, 4 = agree, 5 = strongly agree). Likert-type scales were reported as the percentage that agreed or strongly agreed (rating of 4 or 5) with a given statement, along with the mean and SD rating. Specific comments are not presented herein because they were considered confidential to the physicians at our institution. Participation in both the initial instrument and follow-up survey was completely voluntary and anonymous.

OUTCOMES

Of the 39 physicians who were invited to participate, 25 responded to the initial survey (64% response rate) and 11 responded to the follow-up survey (28% response rate). The mean number of positive comments per department was 1.76 (SD 1.00), the mean number of negative comments was 1.18 (SD 1.11), and the mean number of suggestions for improvement was 1.08 (SD 1.25). We found that 64% of participants believed that the feedback they received was informative and useful (mean Likert-type rating = 3.60; SD 1.26), 64% believed that they would change their behavior based on this feedback (mean Likert-type rating = 4.00; SD 0.53), and 73% believed that using peer feedback tools would improve multidisciplinary oncologic care (mean Likert-type rating = 4.10; SD 0.60). Sixty-four percent also believed that feedback from physicians in other specialties was more useful than what they receive from their own department (mean Likert-type rating = 3.70; SD 1.16) or patients (mean Likert-type rating = 3.50; SD 1.18). In regards to participants' views on the conceptual framework of the study as a whole, 64% believed they would benefit more from individualized feedback from their peers rather than the feedback given to an entire department that was done in this study. Forty-five percent of participants expressed a desire for more specific feedback, particularly so they know whether the comments were directed at them or other physicians in their department. Eighteen percent of participants preferred receiving department feedback as a whole due to the global perspective it provides.

An important limitation of this study is that we only assessed the perceived value of the feedback and intended changes in physicians' practice as a result of it, rather than actual changes put into practice or long-term improvements in physician performance. Assessing for these changes over time was beyond the scope of the current study, though notably prior publications have shown that the majority of physicians will make a change in their practice within months based on multisource feedback they receive [11,12].

Another limitation is the low response rate to the follow-up survey. This was in marked contrast to the initial survey, which had an excellent response rate, perhaps reflecting that physicians feel more comfortable giving feedback than receiving it. The poor response rate to the follow-up survey may have also been due to survey fatigue, or dislike for the feedback itself, which preceded the questions in the follow-up survey. Sargeant et al showed that receiving negative feedback leads to a more pronounced emotional reaction, decreased

acceptance of the feedback, and lower likelihood of behavioral modifications [13]. Similarly, in our study, a negative emotional reaction to any negative feedback may have led potential participants to abandon the survey. As such, some degree of selection bias in our findings is probable. Indeed, the voluntary nature of this study is a significant limitation because it is likely that those who would benefit most from the feedback, and those to whom most of the negative feedback was likely to be in reference, were probably least likely to participate. For this reason, if our approach were actually put into practice, mandatory participation with buy-in from all departments would help ensure the maximum benefit of the feedback.

In summary, this pilot study demonstrates the feasibility and utility of multidisciplinary peer feedback among physicians who care for patients with cancer, using a novel approach in which the feedback was collected in the context of subspecialty departments as a whole rather than individuals to preserve the anonymity of the physicians who interact with one another on small multidisciplinary teams. The majority of individual participants believed that they would change their behavior based on the feedback that their department received and that multidisciplinary oncologic care would improve as a result of this experience. There are clearly pros and cons to offering more generalized feedback in the context of an entire department rather than more particular feedback specific to an individual, and a major drawback of our approach was leaving some physicians unsure of which responses were truly directed at them. Our goal in this experience was to provide insight into the values of physicians in other departments in the context of shared encounters as a means of facilitating self-reflection and the application of relevant points to one's own practice. Some individuals seemed to be more capable of this than others, as has also been demonstrated in prior studies, but overall, our approach seemed to be well received.

References

1. Fleissig A, Jenkins V, Catt S, Fallowfield L. Multidisciplinary teams in cancer care: are they effective in the UK? *Lancet Oncol.* 2006; 7:935–43. [PubMed: 17081919]
2. Lockyer J. Multisource feedback in the assessment of physician competencies. *J Contin Educ Health Prof.* 2003; 23:4–12. [PubMed: 12739254]
3. Hammerly ME, Harmon L, Schwaitzberg SD. Good to great: using 360-degree feedback to improve physician emotional intelligence. *J Healthc Manag.* 2014; 59:354–65. [PubMed: 25647955]
4. Mueller PS. Teaching and assessing professionalism in medical learners and practicing physicians. *Rambam Maimonides Med J.* 2015; 6:e0011. [PubMed: 25973263]
5. Tariq M, Boulet J, Motiwala A, et al. A 360-degree evaluation of the communication and interpersonal skills of medicine resident physicians in Pakistan. *Educ Health (Abingdon).* 2014; 27:269–76. [PubMed: 25758391]
6. Vesel TP, O'Brien BC, Henry DM, van Schaik SM. Useful but different: resident physician perceptions of interprofessional feedback. *Teach Learn Med.* 2016; 28:125–34. [PubMed: 27064716]
7. Donnon T, Al Ansari A, Al Alawi S, Violato C. The reliability, validity, and feasibility of multisource feedback physician assessment: a systematic review. *Acad Med.* 2014; 89:511–6. [PubMed: 24448051]
8. Alofs L, Huiskes J, Heineman MJ, et al. User reception of a simple online multi-source feedback tool for residents. *Perspect Med Educ.* 2015; 4:57–65. [PubMed: 25822123]
9. Lamb BW, Wong HW, Vincent C, Green JS, Sevdalis N. Teamwork and team performance in multidisciplinary cancer teams: development and evaluation of an observational assessment tool. *BMJ Qual Saf.* 2011; 20:849–56.

10. Vinod SK, Loneragan DM. Multisource feedback for radiation oncologists. *J Med Imaging Radiat Oncol.* 2013; 57:384–9. [PubMed: 23721151]
11. Fidler H, Lockyer JM, Toews J, Violato C. Changing physicians' practices: the effect of individual feedback. *Acad Med.* 1999; 74:702–14. [PubMed: 10386101]
12. Nurudeen SM, Kwakye G, Berry WR, et al. Can 360-degree reviews help surgeons? Evaluation of multisource feedback for surgeons in a multi-institutional quality improvement project. *J Am Coll Surg.* 2015; 221:837–44. [PubMed: 26272014]
13. Sargeant J, Mann K, Sinclair D, Van der Vleuten C, Metsemakers J. Understanding the influence of emotions and reflection upon multi-source feedback acceptance and use. *Adv Health Sci Educ Theory Pract.* 2008; 13:275–88. [PubMed: 17091339]

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