Benefit of report card feedback after point-of-care assessment of communication quality indicators

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Introduction: Effective communication in healthcare is crucial for patient experience and biomedical outcomes, but problems with communication are often seen in healthcare. Educational programs can improve communication, but skills must be reinforced after graduation to remain improved. Since educational methods are too resource-intensive for sustained use over entire organizations or regions, it will be necessary to develop affordable methods for "Communication Quality Assurance." The first author has been sequentially developing the necessary techniques, including the behavior-specific measures called communication quality indicators. The objectives for this project were to demonstrate secure audiorecording in an outpatient visit, and to use communication quality indicators with a heterogenous set of patient-clinician conversations.

Methods: Thirty primary care physicians were audiorecorded with one or more patients via a secure Internet application that ran on exam-room computers. Recordings were transcribed and quantitatively abstracted using explicit-criteria definitions for two groups of communication quality indicators: assessments of understanding (AUs) and jargon explanations (JEs). There are four separate behaviors within the AU group: open-ended, close-ended, the highly effective "request for teachback." And least-effective "OK?" question. Quality indicator data was returned to the physicians using a previously described report card technique (Patient Educ Couns, 2014, 97:248-255). After feedback, one or more follow-up recordings and abstractions were done for comparison.

Results: Baseline transcripts included an average of 15.5 unique jargon words, but words were often used more than once so the average total jargon count was 25.1. JEs were rare at baseline, with a median of 1 explanation per transcript. The JE ratio (fraction of jargon words that follow a JE for that word) averaged 0.26 out of a best-possible 1.0. AUs were found in 61.1% of baseline transcripts, but most were "OK?" questions (median 2.13/transcript) or close-ended AUs (median 0.52/transcript).

After the report card, the median number of JEs improved to 4 per transcript (Wilcoxon, p=0.002), and the jargon explanation ratio improved to 0.36 (matched t-test, p=0.008). AUs also improved to 81.3% of transcripts ($\chi^2$ test, p=0.036). Most of the increase was found in close-ended AUs (median 0.97/transcript, Wilcoxon, p=0.037).

Discussion: This project demonstrated that it is feasible to audiorecord at the point of care, abstract transcripts at a central office, and improve communication quality indicators with a simple report card. The small sample size was acceptable for a demonstration project, but implementation within a larger, multifaceted program could improve patient experience and biomedical outcomes across an entire organization.