



# Improving surgical residents' communication in disclosing complications: A qualitative analysis of simulated physician and patient surrogate conversations



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## ABSTRACT

**Background:** In this study, we explore surgical resident communication with simulated patient surrogates (SPs), in an Objective Structured Clinical Examination (OSCE).

**Methods:** We use discourse analysis (DA), a qualitative approach to analyzing language, to evaluate our residents' interactions with simulated patient surrogates. After identifying problematic communication patterns, we apply communication theory to discuss our findings and provide suggestions for improvement.

**Results:** Residents consistently use bluntness, defined as delivering the news abruptly and without adequate preface, and evasiveness, defined as avoiding giving the news, to deliver difficult information. In addition, some residents use neutral language when empathetic language is warranted; and some try to direct the response of SPs, who then become defensive. Residents use evasiveness most frequently, followed by bluntness. These delivery methods often result in poor communication.

**Conclusions:** We recommend further research in barriers to effective resident communication with patients, as well as future research on the positive effects of good communication on patient perception. Learning these skills will help residents to convey support and empathy to patients, thereby enhancing care.

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## 1. Introduction

Good communication skills are essential for physicians and have been shown to improve the value of care and increase patient safety.<sup>1–3</sup> Moreover, physicians with good communication skills have higher job satisfaction and less work stress.<sup>4</sup> Developing good communication skills is particularly salient for surgical residents, who tend to perform worse in nonverbal decoding skills (i.e., in assessing the nonverbal cues of patients) than residents entering primary care.<sup>5</sup> In addition, research suggests that good communication skills are integrally important to surgeons because they often deal with critically ill patients, and thus encounter difficult communication scenarios frequently.<sup>6</sup>

Disclosing a medical error is a difficult communication task that constitutes an important area of study. Patients expect both high-

quality information and empathetic support when receiving bad news from their physicians.<sup>7</sup> However, many physicians need to improve their communication skills in this area.<sup>8</sup> Thus, it is incumbent on residency training programs to teach the “interpersonal and communication skills” core competency of the Accreditation Council for Graduate Medical Education (ACGME).

In this study, we analyze simulated encounters between a physician and patient surrogates to examine the language residents use in disclosing complications during an Objective Structured Clinical Exam (OSCE). We use discourse analysis (DA), a form of language analysis that is often employed by communication scholars. DA is a qualitative method that analyzes language in naturally occurring interactions or texts to identify themes or meaning. “Discourse analysis looks at the ways in which speakers design the content of each turn at talk, at how interactions are sequenced and managed and also at speakers' choices in terms of vocabulary, grammar, intonation and rhetoric.”<sup>9</sup>

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## 2. Materials and methods

### 2.1. Case study

In the simulation, each resident was given the case of a 70-year-old male patient (Ken) admitted for preventive quadruple-bypass surgery who subsequently suffered a heart attack. Before the resident arrived at the hospital, another resident had ordered an electrocardiogram (EKG) because the patient was experiencing atrial fibrillation, but left without informing the oncoming resident that an EKG had been ordered. As a result of this failure in communication, the patient had an undiagnosed heart attack and heart failure for 2 days, during which time additional interventions could have helped minimize damage to his heart. Because of this error, the patient will now have a reduced quality of life. The resident is instructed to disclose to the SPs that their loved one suffered a heart attack that was missed by the surgical team.

### 2.2. Resident/SP training and instructions

Details of the OSCE were described previously.<sup>10</sup> Surgical residents were given the case history detailed above and standardized patients (SPs) attended a 3-h training session prior to the simulation and acted as patient surrogates (simulated family members). During the exercise, they were instructed to become more angry or upset when the resident did not disclose or take responsibility for the error. Albeit staged, this method still captures the spontaneous nature of physician-patient communication: both the resident and the surrogate patients were unsure how the other would respond.<sup>9</sup> The OSCE we used was similar, in content and structure, to a previous version that resulted in reliable measures of interpersonal and communication skills.<sup>10</sup>

### 2.3. Data collection

In order to analyze residents' communication, we first viewed 16 video-recorded performances (from 2012) of one 1st year and six 3rd year residents, as well as 9 critical care surgical fellows, who all received the aforementioned case during the Family Conference Objective Structured Clinical Examination (OSCE) administered by our Department of Surgery. This was the only time this particular scenario was used, so none of the residents had experience with this case, although the 3rd year residents had been exposed to a different OSCE scenario in a previous year. We decided not to isolate the residents and fellows by year because previous reports demonstrate that despite the differences in training levels among the residents, the difference in residency year seems to have no significant bearing on communication performance.<sup>10</sup>

### 2.4. Data analysis

The transcription coding symbols we used<sup>11</sup> were simplified to ensure readability and to reflect broader communication strategies, rather than emphasizing individual word units (Appendix I). In addition to our DA, the SPs and residents, as well as a clinical surgeon or nurse, rated residents in a checklist format on global skills such as their clarity in giving information, honesty, trustworthiness, and empathy and communication skills, among other measures.

An expert in DA (C.B.) viewed and transcribed the OSCE videos. Transcripts were read and the videos were re-watched using DA to look for patterns of problematic communication; specifically to identify patterns in how the residents delivered the news as well as word choices that led to defensive moments in the interactions. This methodology allowed the communication patterns to emerge

organically without preset assumptions about what communication problems we would find.

Relevant communication theory was then used to subdivide key characteristics of the interactions into 2 dyads that contribute to supportive or defensive communication environments based on the work of foundational interpersonal communication scholar, Jack Gibb (Appendix II).

In order to correlate our findings with the scores the residents received on the exam from the SPs, faculty raters, and critical care nurses, we aggregated and averaged the residents' scores and then compared our data to those scores.

## 3. Results

We found that residents disclosed the complication and/or error using 3 methods: bluntness, evasiveness, and forecasting, which have been defined and detailed elsewhere.<sup>12</sup> We focus on bluntness and evasiveness because these are the two delivery styles which should be improved.<sup>12</sup>

Bluntness has been defined as delivering distressing information very early on in the interaction and without a preface to provide context of the seriousness of the news.<sup>12</sup> Of the 16 residents we evaluated, 7 (43.7%) exhibited bluntness, at some time during the interaction. Some residents communicated bluntness and at other times used evasiveness, so the 2 are not mutually exclusive but can overlap during the same interaction.

Evasiveness, or "stalling," has been defined as taking longer than 2 min to deliver the news, using technical concepts, delivering the news in a monologue, and the use of euphemisms rather than direct language, to discuss the outcome.<sup>12</sup> To this definition, we also added focusing on other elements of the case to avoid talking about the complication and/or error, and asking leading questions to stall the disclosure of the complication and/or error. Of the 16 residents, 12 (an overwhelming 75%) used evasiveness at some point.

### 3.1. Bluntness

The simulation featured 2 pieces of bad news that the resident needed to deliver: 1) the patient had a heart attack, and 2) the surgical team failed to evaluate the EKG results that identified the heart attack. The following transcript excerpt shows how one of our residents abruptly shifted the conversation from a neutral topic (the reason the patient had surgery) to an emotionally charged topic (the heart attack). Dan and Dorothy are the names of the SPs.

**Resident:** And he had the operation, and the operation went well. Um, on day two after his operation, he did have a heart attack.

**Dan/Dorothy:** What?! P> (*The family reacts with shock.*)

**Resident:** He did.

**Dorothy:** Wait a minute, we don't know about this; you need to ... What?/

**Dan:** That was several days ago?

**Resident:** That was several days ago; we just learned about it today.

The resident closes the sequence by abruptly disclosing the error: the surgical team just learned about the heart attack, even though it happened several days ago. In this interaction, bluntness is used at two points during the disclosure.

### 3.2. Evasiveness

This transcript excerpt shows how one resident was evasive about the mistake made during the shift change. Again, Dan and Dorothy are the names of the SPs.

**Resident:** Usually, yeah usually, the grafts last a pretty long time, a few years at least, um, it doesn't happen. Again it's very rare that grafts will go down right after the surgery/ but it is a *risk* of having the surgery.

**Dan:** Well it's a good thing you caught it.

**Dorothy:** Yeah.

**Dan:** I'm glad we're at the U here where things don't go wrong.

In the sequence above, the SP gives the resident the opportunity to disclose the error, but she never discloses it during the interaction.

### 3.3. Word choice

Two categories of supportive/defensive communication fit the patterns that occurred most frequently in the resident communication we analyzed. One is neutrality and empathy, and the other is control and problem orientation. Neutrality refers to the use of neutral language when empathetic language should be used. Of the 16 residents, 12 (75%) used neutral language at some point when empathetic language should have been used. Control refers to attempts to guide responses instead of creating a collaborative communication environment. Of the 16 residents, 10 (62.5%) used control as a communication strategy.

### 3.4. Neutrality instead of empathy

In the following transcript excerpt, the resident fails to use empathetic language when describing Ken's worst-case scenario outcome. In this scenario, Dan is the SP.

**Resident:** You know, *worst-case scenario* is that he's not able to get back to his life, he's, he's you know absolutely *crippled*. I guess the *worst-case scenario* is that something terrible happens and he ends up dying, that's always the *worst-case scenario*. And the next is that he's just terribly medically *crippled*, that he can't do the things he was able to do and he needs to be taken care of. *Best-case scenario* and what I hope we can get him back to, is that he's able to get back and to relatively normal life, albeit, needing to be checked up on.

**Dan:** So as far as if he ... does need round-the-clock care/ from here on out (*resident massages finger*) it's going to be *expensive*. And, uh, I don't know if he has coverage/ for that; I mean, somebody's got to ... take responsibility/.

As is evident in the preceding example, the nonchalant way the resident discusses the possibility of Ken's death illustrates a lack of empathy and his use of the word "crippled" may also be offensive to some. Tellingly, this interaction was immediately followed by Dan asking about possible compensation for Ken's medical bills.

### 3.5. Control instead of problem orientation

Another common problematic communication pattern we observed was that some residents attempted to direct their listeners' reactions. In our scenario, controlling language made the SP

respond in a distrustful manner. In this transcript excerpt, the resident tries to control the family member's reaction.

**Dorothy:** Well, he had that problem = you called me a few days ago, his heart was irregular?

**Resident:** Yeah, he had atrial fibrillation.

**Dorothy:** That should have been a red flag\ right there/.

**Resident:** It should have. The, the *problem* that happened is that the EKG was *missed*/ missed, and misplaced, so that we didn't see it for two days\ so I don't *know* in those two days if we could have done anything differently, I tend to think we probably could have/.

**Dorothy:** I would think you *would*. You could have tried everything/!

**Resident:** Yeah, I think that we probably would have, but it's hard to say in retrospect. All we can do now = I think is move on from here. The cardiologists are being very helpful in terms of the medicines that [they] were going to use to treat him and we have a lot of different = you know supportive care here

In this interaction, the resident conveyed the attitude that, although an error was made, it may not have affected Ken's care. The resident's immediate redirection to "moving on" may generate a sense of distrust, because the SP may have felt she was being manipulated.

After comparing our discourse analysis with the scores residents received from faculty raters, nurses, and SPs, we found that our DA analysis positively correlated with those scores. For example, problematic communication patterns occurred much less frequently among the highest performers than the lowest performers. On average, we noted negative communication behaviors 4 times/interaction in the highest quartile, 4.25 times/interaction in the second highest quartile, 16.25 times/interaction in the third quartile and 13 times/interaction in the bottom quartile.

All of the residents in the bottom quartile used evasiveness, while only half of residents in the top quartiles used this tactic. Half of the residents in each of the top quartiles exhibited bluntness, while 3 of the 4 in the third quartile and none in the bottom quartile exhibited bluntness.

Some of the residents from each quartile exhibited neutrality, however, all of the top performers also exhibited empathy, 3 of the 4 in the second quartile exhibited empathy, 1 of 4 in the 3rd quartile exhibited empathy and none in the bottom quartile exhibited empathy. Likewise, control was exhibited in all of the quartiles, yet among the top 2 quartiles half of the residents exhibited problem orientation, the 3rd quartile had 1 resident exhibit problem orientation, and the bottom quartile had no residents use problem orientation. So, regardless of controlling communication, exhibiting problem orientation at some point during the interaction had a positive relationship with the residents' scores.

Clearly, all of the residents had some communication problems, yet, the highest performers had less negative communication per interaction than the low performers and many more good communication behaviors (averaging 20.5/interaction, compared with 4/interaction for the lowest performers).

## 4. Discussion

### 4.1. Delivering bad news

Our findings fit with previous research on the most common ways physicians deliver bad news: bluntness, evasiveness, and

forecasting.<sup>12</sup> Clearly, bluntness and evasiveness are not the best methods for disclosing a complication as both bluntness and evasiveness have been associated with negative patient perceptions.<sup>12</sup> We hypothesize that the reason the third quartile had slightly more negative communication behaviors per interaction than the worst performing group is because the third quartile also had a higher number of positive communication behaviors (averaging 6.75 good behaviors/interaction compared with 4 good behaviors/interaction).

It is understandable why some residents may use evasiveness or bluntness. In terms of evasiveness, the most common problem we observed in news delivery, residents may employ this method because of the perceived high expectations patients have of physicians.<sup>13</sup> In addition, residents may also use this strategy when they deliver information about a complication because they may want to avoid conflict with the patient or the patient's family. Yet, such behavior may ultimately have the opposite effect by eroding ideal physician behaviors of trust and straightforwardness.<sup>14</sup>

Forecasting, which involves providing some indication of the seriousness of the complication in order to lessen the initial shock, is the most effective method for disclosing bad news.<sup>12</sup> For example, opening with "The operation went well, but we did have a complication. Ken had a heart attack after surgery, but he is going to be okay" would be better than simply blurting, "So, we had a complication," without providing any additional information upfront. Being more specific and reassuring should minimize the fear and uncertainty the SPs may feel during this disclosure.

#### 4.2. Empathy

Given the nature of the news in our simulation, family members likely expected empathy from the resident. Patients expect physicians to be empathetic and perceive them more favorably when they are seen as empathetic.<sup>14</sup> In their discourse analysis of OSCE exams in the UK, Roberts et al. similarly asserted that stronger candidates had an "empathetic" style of communication" while weaker candidates had a "retractive," or distancing style of communication.<sup>9</sup>

How to show empathy in a communicative encounter is not necessarily obvious. Many factors affect the perception of empathy, including body posture, facial expression, and tone of voice, but word choice is also critical. According to the theory of expectancy violations, when a communicator's response violates what the listener was expecting to hear<sup>15</sup> the listener may dismiss the information and feel negatively toward the communicator. Similarly, as Gibb points out in his discussion of neutrality and empathy, communicating neutrality when the listener is hoping for empathy can make the listener defensive.<sup>16</sup> Although Gibb is referring to psychologists, his observation about being clinically detached applies to physician communication as well.<sup>14</sup>

One way to avoid neutrality in speech is to replace it with empathetic language. As Gibb puts it, "Reassurance results when a message indicates that the speaker identifies himself with the listener's problems, shares his feelings, and accepts his emotional reactions at face value."<sup>17</sup> Validating the listener's feelings is one way to establish a supportive communication environment.<sup>16</sup> Moreover, empathy also benefits the communicators: one study found that medical students who scored lower on empathy and professionalism also tended to have higher levels of burnout.<sup>18</sup>

#### 4.3. Problem orientation

Residents may well have good intentions when they are trying

to redirect patients, or they may be feeling defensive. In general, people may become defensive when they perceive a threat.<sup>16</sup> In our scenario, the threat was to residents' professional identity and competence. Indeed when physicians are uncomfortable or uncertain, they tend to be more paternalistic in how they interact with patients,<sup>19</sup> and such a controlling style of communication is rated less favorably by patients.<sup>2,3</sup>

Whether or not our residents felt defensive, they should have not expressed this in their communication, because controlling communication frequently resulted in defensive reactions by family members. Gibb acknowledges this vicious cycle: "Defensive behavior, in short, engenders defensive listening, and this in turn produces postural, facial, and verbal cues which raise the defense level of the original communicator."<sup>16</sup>

In contrast, problem orientation "communicates a desire to collaborate in defining a mutual problem and in seeking its' solution."<sup>16</sup> Elsewhere, a similar process has been called "joint-problem solving" and is a positive behavior for physicians to exhibit.<sup>9</sup> Problem orientation does not give an indication that the speaker is trying to direct or control the outcome, but allows the solution to the problem to be open-ended.

In our scenario, there is not much the family members could have done to offer a solution to the patient's worsened health, but they would likely have felt a greater sense of confidence in the resident if he/she had expressed concern or regret about the failed communication during the shift change and been more open to their input (which the higher performers tended to do). In addition, if the resident had verbalized their intent to improve communication during shift changes, so that their loved one's problem would help bring about positive changes for other patients in the future, the family members would have had a sense that there was some benefit that came out of this difficult scenario. Indeed, this sentiment was verbalized by the SPs when the resident did use this sort of reassurance.

We chose to use DA because in contrast to assessment checklists of communication skills that rate residents as empathetic or non-empathetic on a sliding scale, DA analyzes very specific problems in language that residents employ, making it an ideal method for identifying good and bad communication patterns among medical learners.<sup>9</sup> In their argument for the use of DA to study OSCE exams, Roberts et al. argue, "In order to use assessment as a formative (as well as a summative) tool and to mine the gold that lies hidden in OSCEs, a research approach is needed that will slow down the whole process and fix our gaze on each interactional episode and how it came to be produced, so that the talk of consultations can be analyzed in detail."<sup>9</sup> We used DA to similarly analyze resident communication interaction during an OSCE.

Finally, as both a methodology and theory, DA asserts that language is more than a representation of reality, but rather constitutes reality.<sup>20</sup> It holds that language constitutes an environment that can be understood as supportive or defensive.<sup>16</sup> In our study, we used DA to identify how residents' communicated. What we found fit with research from communication studies on supportive and defensive communication environments, thus, our method involved three phases, 1) discourse analysis, 2) correlating our DA with residents' global scores, and 3) the application of communication theory to identify, and provide advice for, remediation of the communication deficits we observed.

The limitations of this study include its small sample size ( $N = 16$ ), its higher number of male residents ( $n = 10$ ) as compared with female residents ( $n = 6$ ), and its lack of accounting for our residents' cultural diversity. In addition, our 3rd year residents had been exposed to a similar OSCE (but a different case) in a previous

year, so this may have given them an advantage. Finally, we had only one analyst (C.B.) for the transcripts. Future research could benefit from more than one analyst using discourse analysis to establish a high cohesion of reliability. While our study was not large enough to draw any definitive conclusions about culture, we did note that the female residents tended to score better. Further research could be done with resident OSCE videos with an emphasis on gender and culture. Still, this study supports the existence of patterns of problematic communication among surgical residents that could be targeted for remediation.

## 5. Conclusion

Our research illustrates that evasiveness and bluntness were two barriers to effective communication for residents delivering bad news. For most physicians, a forecasting approach is the safest and clearest way to communicate bad news to patients and their family members.

In addition, we found that residents could have been more empathetic when delivering the news and used more collaborative, rather than controlling communication with the SPs. Our research substantiates the need for further research in communication deficits in surgical residents, with the aim of improving their communication. It also elucidates the importance of using positive communication behaviors in patient interactions. The ultimate goal is better psychological— and even physical— outcomes for patients, as well as increased job satisfaction for residents.

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## Appendix A. Supplementary data

Supplementary data related to this article can be found at <https://doi.org/10.1016/j.amjsurg.2017.10.041>.

## Appendix I. Transcription coding symbols

Symbol	Description
Dash —	Does not finish word or idea
Backslash \	Intonation down
Forward slash /	Intonation up
Equal =	Lengthening of a word
Three periods ...	Longer-than-expected pause in speaking
(Hx)	Exhalation
P<	Speech that is softer than the rest of the conversation
P>	Speech that is louder than the rest of the conversation
<i>Italics</i>	Words that were emphasized

## Appendix II. Transcription coding dimensions

Disconfirming	Confirming
Certainty	Provisionalism
Neutrality	Empathy
Control	Problem Orientation
Strategy	Spontaneity
Evaluative	Descriptive
Superiority	Equality

## References

- Gillian TD, Sekeres MA. Can doctors be taught how to talk to patients? New York. Y Times. [http://well.blogs.nytimes.com/2014/02/27/can-doctors-be-taught-how-to-talk-to-patients/?\\_r=1](http://well.blogs.nytimes.com/2014/02/27/can-doctors-be-taught-how-to-talk-to-patients/?_r=1). Accessed 08.01.2016.
- Roter D. Models of doctor-patient relationship [PowerPoint slides]. <http://ocw.jhsph.edu/courses/isbtii/PDFs/Session21roterinteraction2010.pdf>. Accessed August 16, 2016.
- Buller MK, Buller DB. Physician's communication style and patient satisfaction. *J Health Soc Behav.* 1987;28:375–388. <https://doi.org/10.2307/2136791>.
- Maguire P. Key communication skills and how to acquire them. *BMJ.* 2002;325:697–700. <https://doi.org/10.1136/bmj.325.7366.697>.
- Giannini JA, Giannini JD, Bowman RK. Measurement of nonverbal receptive abilities in medical students. *Percept Mot Ski.* 2000;90:1145–1150. <https://doi.org/10.2466/pms.2000.90.3c.1145>.
- Bradley CT, Brasel KJ. Core competencies in palliative care for surgeons: interpersonal and communication skills. *Am J Hospice Palliat Med.* 2008;24:499–507. <https://doi.org/10.1177/1049909107310063>.
- Munoz Sastre MT, Sorum PC, Mullet E. Breaking bad news: the patient's viewpoint. *Health Commun.* 2011;26:649–655. <https://doi.org/10.1080/10410236.2011.561919>.
- Fallowfield L, Jenkins V. Communication sad, bad, and difficult news in medicine. *Lancet.* 2004;363:312–319. [https://doi.org/10.1016/S0140-6736\(03\)15392-5](https://doi.org/10.1016/S0140-6736(03)15392-5).
- Roberts C, Wass V, Jones R, Sarangi S, Gillett A. A discourse analysis study of 'good' and 'poor' communication in an OSCE: a proposed new framework for teaching students. *Med Educ.* 2003;37(3):192–201.
- Schmitz CC, Chipman JG, Luxenberg MG, Beilman GJ. Professionalism and communication in the intensive care unit: reliability and validity of a simulated family conference. *Simul Healthc J Soc Simul Healthc.* 2008;3:224–238. <https://doi.org/10.1097/sih.0b013e31817e6149>.
- Edwards JA, Lampert MD, eds. *Talking Data: Transcription and Coding in Discourse Research. United States.* Lawrence Associates: Erlbaum; 1993.
- Shaw J, Dunn S, Heinrich P. Managing the delivery of bad news: an in-depth analysis of doctors' delivery style. *Patient Educ Couns.* 2012;87:186–192. <https://doi.org/10.1016/j.pec.2011.08.005>.
- Carmack HJ. Bearing witness to the ethics of practice: storying physicians' medical mistake narratives. *Health Commun.* 2010;25:449–458. <https://doi.org/10.1080/10410236.2010.484876>.
- Bendapudi NM, Berry LL, Frey KA, Turner Parish J, Rayburn W. Patients' perspectives on ideal physician behaviors. *Mayo Clin Proc.* 2006;2006(81):338–344. <https://doi.org/10.4065/81.3.338>.
- Burgoon JK. Interpersonal expectations, expectancy violations, and emotional communication. *J Lang Soc Psychol.* 1993;12:30–48. <https://doi.org/10.1177/0261927x93121003>.
- Gibb J. Defensive communication. In: Tubbs SL, Carter RM, eds. *Shared Experiences in Human Communication.* Rochelle Park, NJ: Hayden Book Company, Inc.; 1978:44–49.
- Gibb J. Defensive communication. In: Tubbs SL, Carter RM, eds. *Shared Experiences in Human Communication.* Rochelle Park, NJ: Hayden Book Company, Inc.; 1978:44–49.
- Brazeau CMLR, Schroeder R, Rovi S, Boyd L. Relationships between medical student burnout, empathy, and professionalism climate. *Acad Med.* 2010;85: S33–S36.
- Legare F. Impact of the Ottawa decision support framework on the agreement and the difference between patients' and physicians' decisional conflict. *Med Decis Mak.* 2006;26:373390. <https://doi.org/10.1177/0272989x06290492>.
- Roberts C, Sarangi S. Theme-oriented discourse analysis of medical encounters. *Med Educ.* 2005;39:632–640. <https://doi.org/10.1111/j.1365-2929.2005.02171.x>.