Communication Deficits Among Surgical Residents During Difficult Patient Family Conversations

Carolina Fernandez Branson, PhD,[*] James Houseworth, PhD,[†] and Jeffrey G. Chipman, MD, FACS[*]

[*]Department of Surgery, University of Minnesota, Minneapolis, Minnesota; and [†]Institute on Community Integration, University of Minnesota, Minneapolis, Minnesota

OBJECTIVES: To qualitatively analyze videotaped data of surgical residents and fellows interacting with standardized patients to identify communication weaknesses. To correlate our qualitative data with their quantitative scores.

DESIGN: We used discourse analysis to identify negative communication patterns among 10 surgical residents and fellows who were tested on interpersonal competencies during an objective structured clinical examination in 2014. We then correlated our findings with the validated evaluation outcomes. Descriptive statistics were then used to quantify our findings.

SETTING: The setting was an objective structured clinical examination performed in 2014 using standardized patient surrogate family members.

PARTICIPANTS: The participants were a mix of first and third year surgical residents and critical care fellows.

RESULTS: The item that most strongly differentiated the bottom 5 from the top 5 performers was not answering the patient appropriately. This was exhibited in 3 ways among the lowest performers in our study: (1) paternalism, (2) vagueness, and (3) dehumanization. Our statistical analyses showed that the overall number of negative communication behaviors correlated with negative staff scores ($r = -0.653$, $p < 0.05$). Dehumanization and paternalism were the 2 behaviors most strongly correlated with negative staff scores ($r = 0.796$ and 0.781 respectively, $p < 0.01$).

CONCLUSIONS: We found the lowest performers responded inappropriately to the patient, which we further delineated into vagueness, paternalism, and dehumanization. We propose positive communication strategies be taught to residents to improve how they are perceived by patients. (J Surg Ed 76:158–164. © 2018 Association of Program Directors in Surgery. Published by Elsevier Inc. All rights reserved.)

KEY WORDS: Patient-Centeredness, Difficult Conversations, Discourse Analysis, Negative Communication Patterns

COMPETENCIES: Interpersonal and Communication Skills, Patient Care, Professionalism

INTRODUCTION

The population is aging at an accelerated pace—the number of people over age 66 is projected to double in less than 15 years. Thus, there will be an increasing demand for physicians to have difficult conversations with patients, including palliative care conversations.[1] This is an area in which physicians are in need of improvement.[2] It is also particularly pertinent to surgeons who often treat immediately life threatening diseases in elderly patients and those with comorbid diseases.[2] Consequently, surgeons must hone the communication skills required to have effective palliative care conversations with patients and their families. Ideally, surgical trainees should learn these communication skills for application to their future practice.

Discussing palliative care with patients or family members is challenging for providers[3] and elicits significant stress.[4] Such discussions are also difficult for patients and their families who may have high or even unrealistic expectations of modern medicine and positive treatment outcomes.[5] Therefore, approaching the topic sensitively, with respect for the patient and their family members is essential. Studies recommend that physicians focus on shared decision-making and patient-centeredness during this process.[5,6] Yet, practicing patient-

Correspondence: Inquiries to Carolina Fernandez Branson, PhD, Department of Surgery, University of Minnesota, 420 Delaware St. SE, Minneapolis, MN 55455; fax: 612-626-0439; e-mail: ferna149@umn.edu

  1931-7204/$30.00 https://doi.org/10.1016/j.jsurg.2018.05.014

centered care is not a clear or straightforward task. Therefore, more research on the specific dynamics of the interactions that reveal how negative communication patterns may detract from patient-centeredness is needed.

To identify barriers to patient-centered communication, we use discourse analysis to closely analyze the language of surgical residents during a simulated palliative care conversation with a standardized patient (SP) surrogate. In this case, the surrogate represents a patient's family member. We utilize Larson and Tobin's definition of patient-centered medicine as that which should "be characterized by mutual-participation relationships that encourage informed choice and patient autonomy."[5]

METHODS

Discourse Analysis: It is a qualitative methodology that posits language constructs reality, including meaning, between people.[7] The methodology is used to analyze how speakers interact, and the goal is to assess the meaning of the conversation. This involves the close analysis of conversational features such as vocabulary, turn-taking in the conversation, tone of voice, and strategic use of words among other features.[8] We chose this method because the close attention to conversational detail is ideal to illuminate what makes a good or bad communicator and has been used previously to evaluate medical trainees.[8] For the purposes of this study, we highlight vocabulary, turn-taking in conversation and the strategic use of words to identify some problematic communication themes.

First, we viewed and transcribed 19 videos that included 8 female and 11 male residents from our 2014 objective structured clinical examination (OSCE). Next, we selected the top 5 and bottom 5 scorers based on their OSCE results and rewatched the videos, closely analyzing the transcripts to identify negative patterns of communication. From this process, we identified 8 common communication behaviors that could be improved. We then quantified the number of times each negative behavior occurred during each interaction and identified the 3 most common negative behaviors. These 3 behaviors encompassed 7 of the 8 behaviors we originally identified: vagueness (using evasive language and not answering the SPs questions directly), paternalism/argumentativeness (which included redirection of the conversation, not responding to the SP, contradiction of the SP's beliefs, and expressing superiority), and dehumanization (which included communication behaviors such as nonempathetic word choice when empathetic language should have been used, and referring to the patient in abstract rather than concrete terms). The final category, bluntness, was categorized as an overall negative communication behavior, but is not included in our final 3 most common behaviors because in our study, bluntness did not often overlap with vagueness, dehumanization, or paternalism.

We ran basic descriptive statistics, bivariate correlations, and linear regression analysis. All analyses were run in SPSS version 24 (IBM Corp, 2016).[9] Regression models were fit to explain variance in overall scores, SP, and staff scores. Models were also run with only total negative communication behaviors as an independent predictor, or with evasiveness, dehumanization, and paternalism as independent predictors. All models had age, year in school, and gender as covariates.

RESULTS

Ten surgical trainees were evaluated, 3 were female, the average age was 27.2, and most trainees were in their first year of training. The Table shows performance characteristics for the surgical trainees along with their staff scores, SP scores, and overall scores broken down by high and low scorers, along with overall group summaries. Overall scores for each performance are the average of 3 raters (2 professional staff and 1 simulated patient). Staff scores are an average of the 2 professional staff member's ratings. Our table illustrates the averaged staff scores as well as the SP score and combines these for an overall score. We compare our quantified negative communication behaviors with the resident's overall scores to reflect the varying feedback they received from different sources.

Bivariate correlations were conducted between all variables listed in the Table for the whole group. The number of total negative communication behaviors were negatively correlated with staff scores ($r = -0.653$, $p < 0.05$). Dehumanizing and paternalistic communication behaviors were both significantly correlated with total negative communication behaviors ($r = 0.796$ and 0.781 respectively, $p < 0.01$). Total negative and dehumanizing communication behaviors trended toward a negative correlation with overall scores ($r = -0.563$ and -0.576 respectively, $p < 0.1$). Dehumanization was close to correlating negatively with independent staff scores.

The results of the regression analysis did not identify any significant predictors of score variance. However, these models were likely underpowered due to low numbers and may have yielded significant results were more participants included.

The item that most strongly differentiated the bottom 5 from the top 5 performers was not answering the patient appropriately. This was exhibited in 3 distinct ways among the lowest performers in our study: (1) exhibiting

TABLE. Descriptive Statistics for Selected Variables Among High And Low Scorers

	High Scorers		Low Scorers		Overall	
Gender	3 females, 2 males		0 female, 5 males		3 females, 7 males	
Average Age	27.40 (sd = 2.07)		27.00 (sd = 2.00)		27.22 (sd = 1.92)	
Years of Training	First year (n = 4) Third year (n = 1) Sixth year (n = 0)		First year (n = 3) Third year (n = 1) Sixth year (n = 1)		First year (n = 7) Third year (n = 2) Sixth year (n = 1)	
	Mean	**Std. Dev.**	**Mean**	**Std. Dev.**	**Mean**	**Std. Dev.**
Evasiveness (occurrences)	5.00	4.36	7.40	3.78	6.20	4.05
Dehumanization (occurrences)	1.80	1.64	8.80	5.40	5.30	5.27
Paternalism (occurrences)	6.40	3.29	9.20	7.40	7.80	5.59
Total Negative (occurrences)	16.00	5.24	30.00	12.08	23.00	11.47
SP Score	94.20	14.17	65.60	9.66	79.90	18.92
Staff Score	86.50	6.49	67.60	3.36	77.05	11.09
Overall Score	89.04	1.68	66.92	3.63	77.98	11.96

SD, standard deviation; SP, simulated patient.
Split based on overall OSCE score.
SP, staff, and overall scores out of max score of 106.

paternalism, (2) being vague or evasive about the risks of surgery, and (3) dehumanizing the patient by relying too heavily on data to describe the patients' outcomes and failing to properly demonstrate empathy.

Vagueness/Evasiveness

In our study, 3 of the 5 lowest performers' interactions were characterized by an overall sense of vagueness. Vagueness or indirectness[10,11] is illustrated in language that does not clearly communicate the message and is a previously identified pattern by which physicians deliver bad news.[10,11] Oftentimes, the resident would hint at a larger problem but was not clear as to what it was. Another example of vagueness included discussing abstract concepts such as the "risks" of surgery without a clear explanation of what the risks were and what they meant for the patient. For example, in this scenario, the resident has just told the surrogate that they might not operate on her mother; but because the resident is not clear about the reasons for not operating, the surrogate is confused:

Resident: Well, there are a number of things that come into play. Age is one of them, but you can't just look at a person's age and say, "Oh this is what's going to happen." You have to take into account everything else that's going on.
SP: What else is going on?
Resident: Well, she's been pretty dehydrated and—
SP: (*Surrogate interrupts*) Well, what does that mean? If she's been maybe laying on the floor too long? If I get after them about getting her more liquids that would help wouldn't it?
Resident: Yeah, certainly.
SP: (*8 sec pause*) Hmmm. . . (*6 sec pause*) I guess I still don't quite (*6 sec pause*) what does this *team* think?
Resident: Well, we are, kind of our role, is to present the options to you and what she would want and what you think she would want and provide recommendations (*2 sec pause*) so. . .
SP: Without paper [the advanced directive], I don't understand it, but make all possible, um make it possible for her to uh, I don't quite understand that paper, I just want to make sure that she comes through this okay.
Resident: Yeah, we would love for that to happen, but it's not always the way things do happen.
SP: (*5 sec pause*) You're just kind of vague. I just don't. . .not always, but sometimes people *do* get better?

This sequence is vague, because the resident is trying to broach the topic of end-of-life, but he is not being clear or direct. The fact that the surrogate is confused, illustrates that she does not understand him.

Paternalism/Argumentative Tone

Paternalistic medical encounters are defined by physician control of the interaction and include features such as: (1) the physician only providing medical information as needed, (2) the physician making decisions in what they perceive to be the patient's best interest without consulting the patient, and (3) the physician determining the subject of the conversation while the patient is supposed to follow his/her lead.[12]

In our analysis, the 5 lowest performers averaged 9.2 interactions that included paternalistic behaviors, while the top 5 performers averaged 6.4 paternalistic behaviors. As is exhibited in the encounter below, the surrogate did not react favorably to paternalism and often was argumentative in response. This interaction occurs when the surrogate is describing her mother's mobility and mental status before the fall:

SP: Well, she's needed assistance getting out of bed, I think it's so easy to get up quickly.
Resident: Yeah, she was pretty confused when we were trying to talk to her. It was pretty tough to get her story from her, so we had to kind of rely on the notes and what we heard from the nurses, so. . .
SP: Yeah, change is hard, I think it's getting harder for me too bec—
Resident: (*Resident interrupts*) Well, what the x-rays have showed is that she does have a fracture in her hip. When she fell, she broke her hip which is very common in people of you know her age and when they're frail and they fall, sometimes they break, so (*nodding*).

There are a couple of problematic communication behaviors in the preceding interaction that are worth noting. First, the surrogate is talking on a personal level about her mother and her own experience struggling with her mother's dementia. The resident not only completely ignores this attempt at connection, but abruptly interrupts her and switches the topic to the clinical outcome. During the rest of this residents' sequence he challenges the surrogates' views in a way that does not convey mutuality or respect and to which the surrogate reacts negatively.

Dehumanization

Dehumanization is a recognized problem in medicine, and is briefly defined as, "a diminished attribution and consideration of others' mental states."[13] In this analysis, dehumanization was identified when residents were speaking about the patients in abstract terms as well as failing to use empathic language. This theme seemed to be the most distinguishing negative communication behavior between the top and lowest performers. The top 5 performers averaged 1.8 of these behaviors per interaction, while the lowest 5 performers averaged 8.8 of these behaviors per interaction. In the following sequence, the resident is explaining why the patient is not a good candidate for surgery by discussing her in abstract terms:

Resident: Right, right, so we don't think at this point we'll return her to the quality of life she previously had.
SP: Why not?
Resident: In patients of her, of her age, and uh, with her dementia, the data suggests it's just a very dangerous procedure and they rarely return to their previous state.
SP: Why is it dangerous? I don't understand.
Resident: It's something that we don't fully understand either but patients of that age consistently have trouble with the procedure, so unfortunately I don't have all the necessary facts, it's something we don't understand well either.
SP: (*Deep breath out*) you're telling me—I thought I was coming in to talk about a date for when her hip was going to be replaced. . .You're telling me she's going to die?
Resident: Hmm.
SP: And there's nothing we can do?
Resident: Right, yeah. I think you know in my opinion and the opinion of the general surgery team the best course of action for your mother's quality of living and for a comfortable end of life would be to refer her to hospice. I think surgery would put too much burden on her and it would put a lot of burden on your family and it might not be what she would want—
SP: There's only me, there's only me, there's no family.
Resident: Yeah, I don't think it would be what she would want at the end of life.

The preceding example features several problems in communication. The first is the overarching depersonalization of the SP and her family member. This is conveyed when the resident refers to the data indicating that patients like the SP's mother generally do not do well following surgery, but he fails to specify the actual risks for her mother, as a unique and individual patient. Clearly, this sequence also illustrates vagueness and a lack of empathy, as illustrated by the residents' failure to specify the risks following surgery, and responding "Hmm," and "Right, yeah" to the surrogates' inquiry about her mother dying. The second element of dehumanization is evident in the residents' comment that the surrogates' mother is a "burden". Finally, this interaction illustrates paternalism, as the resident closes the conversation by asserting that he does not believe the patient would want a particular mode of care at the end of life, even though he does not know the patient or the surrogate.

DISCUSSION

Vagueness

Our findings that vagueness was a common deficiency in our residents' communication is consistent with the literature that discusses vagueness as a common problem

physicians have leading difficult conversations[10,11], or when delivering bad news.[10,11] Yet, communicating clearly with patients (especially in the ICU setting as is the case in our scenario) is incredibly important to patients and their family members. Indeed, giving accurate information is perceived by family members of those in the ICU as supportive.[14]

When physicians fail to adequately explain the specifics of a patient's condition and leave the family with unanswered questions, the result is often dissatisfaction with the clinician and the process.[14] Therefore, the ability to compassionately provide clear, concise advice and direction is essential to palliative care conversations, especially in the ICU, when the physician may have only one chance to discuss the topic with family members.

Paternalism

Physician's interruptions of patients during care conversations has been the subject of numerous studies on how physicians can improve communication.[15] When doctors ignore a patient's question or change the topic from what the patient has just said, this dominant behavior leads to less satisfaction among patients.[16] This style is indicative of the paternalistic model and takes away from the patient-centered approach.

One way physician dominance is displayed in encounters with patients is by maintaining control over the conversation. "Platt and McGath use the term 'high control style' as an example of 'clinical hypocompetence' in internal medicine. It involves behaviors such as asking many questions and interrupting frequently. This way the doctor keeps tight control over the interaction and does not let the patient speak at any length."[6]

While recent research has suggested there can be times when doctor interruptions may be appropriate, there are still many moments when it is inappropriate. "The patient who begins telling an emotionally laden story, often about loss or fear, needs to be listened to."[15] There may be varying reasons residents interrupt the surrogate, including trying to control the situation because they are uncomfortable, or reorienting the patient to the goals of the visit or "schema-driven progression."[8] Yet, doing this decreases patient satisfaction. "Doctors who behaved in a more dominant, controlling style of communication produced less patient satisfaction."[6]

In contrast, patients tend to be most satisfied when physicians express empathy and do not dominate the conversation.[16,17] In addition, when the physician is dominating the conversation, they are not participating in mutuality, a cornerstone of patient-centered care. This topic shift strategy may illustrate how residents are taught to interact with patients, listening for information, and recall with the goal of orienting the patient to the physician's goals. Instead, active empathic listening, where the listener is open to the other's viewpoint and adapts their responses according to what the other says[18] would be a better patient-centered strategy. Indeed, active listening has been linked to higher patient satisfaction with care.[19]

Dehumanization

Due to an increasing emphasis on technical skills and advanced biomedical treatments for disease, dehumanization of patients has become an acknowledged problem in patient care, with a more psychosocial orientation proposed as a remedy.[13] Patients prefer a more affiliative style of communication, marked by friendliness, empathy, and psychosocial interest, rather than a controlling style, characterized by professional distance and authority.[16] One of patients' chief complaints with physicians is that they do not feel listened to, or that their physician does not care about them as a person.[19] Also termed "storage failure", this is a category that other discourse analysts have identified as a barrier to patient-centered communication.[8]

Showing empathetic behavior is central to patient satisfaction. When discussion during the medical visit includes psychosocial topics, patients appear more satisfied than when their visit is restricted to biomedical exchanges[17]. This finding was particularly striking in regard to physician question-asking. The more questions asked of patients regarding psychosocial topics and the fewer questions asked in the biomedical realm, the more satisfied patients appeared.[17]

The 3 problematic communication behaviors we identified overlap in many instances. For example, not answering the patient or providing clear advice may be interpreted as paternalistic in some contexts but not others. Therefore, the purpose of differentiating these behaviors is for analytic discussion rather than to delineate discrete categories.

Importantly, overall negative communication behaviors were almost twice as prevalent in the lowest performers, who averaged 30 negative communication behaviors per interaction and the highest performers who averaged 16 negative communication behaviors per interaction. These findings suggest total negative communication behaviors may be a good predictor of how residents score on this OSCE. Dehumanization may be one of the key features of poorer communication ability, leading to lower ratings. Similar to our previous research on surgical residents disclosing a complication during an OSCE[20], we also found that being too vague was a problem among some of the lowest performers, which supports our previous findings on communication deficiencies when disclosing a complication.[20]

LIMITATIONS/FUTURE DIRECTIONS

One of the limitations of our study is that the problematic communication behaviors we observed in the residents are difficult to break down, so there may be several examples of problematic behaviors within a single resident's interaction, as noted above. In addition, more research is needed to test these negative communication behaviors in other OSCE settings to see if they are consistent among different specialties and communication contexts.

However, not all communication behaviors were negative. There was 1 interaction that was noteworthy in that some positive communication behaviors seemed to mitigate a high number of negative behaviors. Thus, further investigation of how these positive behaviors influenced OSCE scores is needed. In addition, coaching on topic transition and turn-taking in the medical interview could be used to improve the asymmetrical power dynamic and contribute to the goal of patient-centered care.

CONCLUSION

Our findings are consistent with Roberts et al. (2003), who identified similar problematic communication behaviors in medical students' OSCEs. Our results uncover additional problematic patterns in the palliative care context. For example, all of the problematic communication behaviors took away from the patient-centered model of care: (1) being vague violates the principle of informed choice and thus, patient autonomy, and (2) paternalism and argumentativeness is indicative of superiority and dominance, which takes away from the principle of mutuality. Finally, (3) dehumanization, defies the context of patient-centered care, which should include warmth and empathy.[16]

The 3 most common negative communication behaviors we identified in our study were: vagueness, paternalism and dehumanization. Frequency of these behaviors correlated negatively with the residents' overall OSCE scores. Dehumanization was a particularly negative behavior in relation to OSCE scores. Many of these instances overlapped within 1 conversational turn by the resident, but show how the elements of language interact to convey a communication setting that had a negative tone.

REFERENCES

1. Knickman JR, Snell EK. The 2030 problem: caring for aging baby boomers. *Health Serv Res*. 2002;37:849–884. https://doi.org/10.1034/j.1600-0560.2002.56.x.
2. Bradley CT, Brasel KJ. Core competencies in palliative care for surgeons: interpersonal and communication skills. *Am J Hospice Palliative Med*. 2008;24:499–507. https://doi.org/10.1177/1049909107310063.
3. Fins JJ, Solomon MZ. Communication in intensive care settings: the challenge of futility disputes. *Crit Care Med*. 2001;29:N10–N15.
4. Meier DE, Back AL, Morrison RS. The inner life of physicians and care of the seriously ill. *JAMA*. 2001;286:3007–3014. https://doi.org/10.1001/jama.286.23.3007.
5. Larson DG, Tobin DR. End-of-life conversations: evolving practice and theory. *JAMA*. 2000;284:1573–1578.
6. Ha JF, Longnecker N. Doctor-patient communication: a review. *Ochsner J*. 2010;10:38–43.
7. Roberts C, Sarangi S. Theme-oriented discourse analysis of medical encounters. *Med Educ*. 2005;39:632–640. doi:101111/j.1365-2929.2005.02171.x.
8. 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;37:192–201.
9. IBM Corp. Released. IBM SPSS Statistics for Windows, Version 24.0. Armonk, NY: IBM Corp; 2016.
10. Sparks L, Villagran MM, Parker-Raley J, Cunningham CB. A patient-centered approach to breaking bad news: communication guidelines for healthcare providers. *J Appl Commun Res*. 2007;35:177–196.
11. Shaw J, Dunn S, Heinrich P. Managing the delivery of bad news: an in-depth analysis of doctors' delivery style. *Patient Educ Counseling*. 2012;87:186–192. https://doi.org/10.1016/j.pec2011.08.005.
12. Pomerantz A, Rintel SE. Practices for reporting and responding to test results during medical consultations: enacting the roles of paternalism and independent expertise. *Discourse Stud*. 2004;6:9–26.
13. Sultan Haque O, Waytz A. Dehumanization in medicine. *Perspect Psychol Sci*. 2012;7:176–186. https://doi.org/10.117/1745691611429706.
14. Boyle DK, Miller PA, Forbes-Thompson SA. Communication and end-of-life care in the intensive care unit. *Crit Care Nurs Q*. 2005;28:302–316.
15. Mauksch LB. Questioning a taboo: physicians' interruptions during interactions with patients. *JAMA*. 2017;317:1021–1022.

16. Cousin G, Schmid Mast M, Roter DL, Hall JA. Concordance between physician communication style and patient attitudes predicts patient satisfaction. *Patient Educ Counseling*. 2012;87:193–197.

17. Bertakis KD, Roter D, Putnam SM. The relationship of physician medical interview style to patient satisfaction. *J Family Pract*. 1991;32:175.

18. Bodie G. The active-empathic listening scale (AELS): conceptualization and evidence of validity within the interpersonal domain. *Commun Q*. 2011;59:277–295. https://doi.org/10.1080/01463373.2011.583495.

19. Levinson W, Lesser CA, Epstein RM. Developing physician communication skills for patient-centered care. *Health Affairs*. 2010;29:1310–1318.

20. Fernandez Branson C, Chipman JG. Improving surgical residents' communication in disclosing complications: a qualitative analysis of simulated physician and patient surrogate conversations. *Am J Surg*. 2017 https://doi.org/10.1016/j.amjsurg.2017.10.041.

SUPPLEMENTARY INFORMATION

Supplementary data associated with this article can be found in the online version at https://doi.org/10.1016/j.jsurg.2018.05.014.