

## Interventions to Promote a Patient-Centered Approach in Clinical Consultations: Improving the Physician-Patient Communication Skills of Thomas Jefferson University Hospitals' Residents and Fellows

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### Abstract

**Background:** Patient-centered communication is a critical component of patient-centered care. The purpose of this study was to evaluate the efficacy of a training course in patient-communication. **Materials:** A training course for resident physicians and fellows was initiated in 2011. The course utilized the Acknowledge, Introduction, Duration, Explanation, Thanking (AIDET™) framework. In the quarter year following the training, a survey was sent to evaluate the trainees' self-assessed physician-patient communication skills. **Results:** Of the 885 trainees who received the survey, 241 responded (response rate, 27%). Those attending the AIDET™ training were significantly more likely to report that they praised the care provided by other teams ( $p=0.01$ ) and to leave contact information for the patient ( $p=0.02$ ). In addition, those who underwent AIDET™ training were more likely to report that they received adequate communication skills training during residency and fellowship ( $p=0.045$ ). **Conclusions:** AIDET™ training is associated with better scores on self-assessed physician-patient communication skills.

### 1. Introduction

The concept of patient-centered medicine was introduced into the medical literature by Balint, who contrasted it with "illness-centered medicine" [Balint, 1955]. In 2001, the Institute of Medicine (IOM) defined the patient-centered care as "healthcare that establishes a partnership among practitioners, patients and their families to ensure that providers and systems deliver care are attentive to the needs, values and preferences of patients." The patient-centered care concept has been disseminated by the IOM as essential to improving healthcare delivery [Dwamena, 2012; America, I.o.M.C.o.Q.o.H.C.i.,2001]. Several studies have reported that numerous patients are dissatisfied with the quality of interaction with their healthcare provider [Verghese, 2011; Stewart, 2007]. Communication difficulties between healthcare providers and patients or families are common, leading to patient dissatisfaction and adverse outcomes.

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Physician-patient communication problems in health care may occur as a result of healthcare providers focusing on diseases and their management, rather than people, their lives and their health concerns. Physicians frequently bypass the bedside evaluation for immediate laboratory or imaging testing. Therefore, the healthcare providers may encounter an image or a laboratory test of the patient before even seeing the patient in person. Avoiding a bedside evaluation not only may cause delay or miss diagnosis of readily recognizable disease, but also may contribute to a poorer physician-patient relationship. Patients expect that some form of bedside evaluation will take place when they see a physician [Verghese, 2011]. Patient-centered care entails equal stakeholder relationships between the patient and the healthcare provider, addresses the patient's perspective, understands the patient within his or her psychosocial context, involves the patient in care to the extent of his or her desires, reaches a shared understanding of the problem and agreement on the treatment plan, and makes decisions that are based on the best clinical evidence, and that are feasible and consistent with patient values [Stewart, 2007; McCormack 2011; Epstein, 2005; Epstein, 2007]. Recent studies have demonstrated a correlation between effective health provider-patient communication and improved patient health outcomes [Glickman, 2010; Jaipaul, 2011]. Patient centeredness has been increasingly advocated and incorporated into the training of healthcare providers [Philibert; 2011; Joyce, 2011]. Increasing focus on patient-centered outcomes has led graduate medical education programs to incorporate patient-centered communication training programs in curricula. Communication is one of the most important American College of Graduate Medical Education (ACGME) clinical competencies for medical residents and fellows. However, the impact of interventions designed to improve physician-patient communication on clinical encounters, patient satisfaction, healthcare behaviors and patient health status has not been sufficiently evaluated. In this study, the AIDET™ (Acknowledge, Introduction, Duration, Explanation, and Thanking) model for physician communication was utilized to promote a patient-centered approach in clinical consultations. AIDET™ is a patient-centered approach first developed by the Studer Group, a healthcare consulting company

[[http://www.studergroupmedia.com/WRIHC/presentations/teaching\\_physician\\_patient\\_communication\\_\(a\\_idet\).](http://www.studergroupmedia.com/WRIHC/presentations/teaching_physician_patient_communication_(a_idet).)]. It focuses on five fundamental aspects of communication necessary in a high quality interaction between physician and patient. It has been implemented in a number of healthcare systems, demonstrating improved patient satisfaction scores in such domains as safety, quality, and patient perception of care

[[http://www.studergroupmedia.com/WRIHC/presentations/teaching\\_physician\\_patient\\_communication\\_\(a\\_idet\).](http://www.studergroupmedia.com/WRIHC/presentations/teaching_physician_patient_communication_(a_idet).)]. The purpose of the present study was to evaluate the efficacy of a training course in patient communication for resident physicians and fellows at Thomas Jefferson University Hospital, an urban academic medical center, and to analyze training characteristics associated with higher self-assessment scores.

## 2. Materials and Methods

In September 2011, the Thomas Jefferson University Hospitals Physician CARE (Communication, Attention, Respect, and Expertise) Task Force initiated a training course for the PGY1 and 2 resident physicians in order to improve the physician-patient communication skills of the trainees. The purpose of the training course was to promote a patient-centered approach in clinical consultations. Communication skills' training is one of the ACGME competences and house staff self-assessment is considered part of the 360° evaluation. The course utilized the Acknowledge, Introduction, Duration, Explanation, and Thanking (AIDET™) framework to model standardized physician-patient interactions. In this intervention, residents and fellows participated 3 hour interactive session using the AIDET™ principles. The AIDET™ training included lectures, videos, and simulations emphasizing the importance of an effective and compassionate communication between the physician and the patient and his or her family, and patient participation in decision-making process. During the session, discrete examples of specific behaviors for each AIDET™ principle were demonstrated in an interactive video in which participants were engaged in a moderated debriefing. Following this, three simulated role play exercises using the AIDET™ principles were conducted. Residents and fellows performed role playing exercises from both the physician and patient viewpoints. Feedback was provided by physicians and communication specialists. In the quarter year following the training, all residents and fellows were sent online surveys to evaluate self-assessed physician-patient communication skills (See Table 1.).

**Table 1: Survey to Evaluate Self-Assessed Physician-Patient Communication Skills**

<b>TABLE TITLE HERE</b>	
<i>No.</i>	<i>Item</i>
<b>Acknowledge</b>	
1	I knock and wait for a reply before entering the patient room
2	I acknowledge everyone in the room upon entry
3	I address the patient by his/her name
4	I sit down (or am at eye-level) when speaking with the patient
<b>Introduce</b>	
5	I introduce myself by name to the patient
6	I mention my years of experience or specialty
7	I clarify/inform the patient of my specific role in his/her care
8	I smile and display good eye contact
<b>Duration</b>	
9	If I am performing a bedside procedure, I am there for the entire duration of the procedure
10	I ask the patient, "What questions do you have for me?"
<b>Explanation</b>	
11	I use clear and understandable language (no medical jargon)
12	I discuss and thoroughly explain all pertinent diagnoses/treatment plans with the patient
12	I discuss and thoroughly explain all available treatment options (e.g. surgery, medicines) and adjunctive therapies (e.g. nutrition, physical therapy)
14	I give a time expectation of how long a test or procedure will take, and when the patient should expect the results
15	I request the patient's permission prior to performing a test/procedure
<b>Thank you</b>	
16	I graciously end the interview (e.g. thank the patient for his/her time), rather than saying goodbye or leaving
17	When discussing multidisciplinary care with the patient, I praise the care provided by other teams (e.g. surgery, medicine)
18	I thank the patient for choosing our hospital
19	I acknowledge everyone in the room prior to leaving
20	I leave contact information for the patient (e.g. my card, hospital contact number)

Approximately one half of those surveyed (PGY1s and 2s only) had received the AIDET™ training. PGY3-9 residents and fellows had not been trained. Respondents were given a 20 item questionnaire. Items were assessed on a four point Likert scale. Baseline training characteristics, including level of post-graduate training, balance of completed inpatient rotations versus outpatient rotations, and procedural specialties (e.g., surgery) versus non-procedural specialties (e.g. medicine) were assessed to determine differences between groups receiving AIDET™ training and those who did not receive training. The survey was endorsed by the Thomas Jefferson University Office of Graduate Medical Education and was approved by the Thomas Jefferson University Institutional Review Board.

### 3. Statistical Analysis

Statistical analyses were performed on the survey's multiple choice questions. A comma-delimited, flat data file containing the raw results from the survey was downloaded from the survey vendor's web site, and analyses were performed using statistical software (SAS, version 9.3). All variables analyzed for the purposes of this report were categorical. Chi-squared tests were used to compare survey results between those receiving AIDET™ training and those without training. Along with differences in self-assessed communication skills between the two study groups, resident and fellow demographic characteristics, including level of post-graduate training, balance of completed inpatient rotations versus outpatient rotations, and procedural specialties (e.g., surgery) versus non-procedural specialties (e.g., medicine) were evaluated to determine demographic differences between groups.

Significance was determined using a cut-off point of  $p = 0.05$ . Fisher's exact test was performed if any expected frequencies in the contingency tables were less than five.

#### 4. Results

Of the 885 residents and fellows who received the survey, 241 responded (response rate, 27%). Of responding trainees 129 received training and 112 did not. There was no significant difference between the trainees attending the AIDET™ training and those not attending on the following variables: gender; the level of post-graduate medical training; the ratio between the inpatient and outpatient rotations; and procedural versus non-procedural specialties. Most residents and fellows who attended the AIDET™ training were in 3-year residency training programs. A higher percentage of those residents and fellows receiving the AIDET™ training rated their baseline communication skills as excellent and a significantly higher percentage felt that they received adequate communication skills training during medical school, residency and fellowship than those without training (p=0.045). Following training, those who attended the AIDET™ training were significantly more likely than those without the AIDET™ training to praise the care provided by other teams (p=0.01) and to leave contact information for the patient (p=0.02). In addition, those who attended the AIDET™ training had a positive, but not statistically significant finding of saying they were likely to sit down or be at eye-level when speaking to their patients (p=0.10); they also were more likely to report thanking the patient for their time, cooperation or choosing our hospital (p=0.06). See Tables 2a, 2b, 2c.

**Table 2a: The Influence of AIDET™ Training on the Self-Assessed Physician-Patient Communication Skills (Acknowledgment and Introduction)**

Question	Always		Frequently		Half of the time		Infrequently		Never		p-value
	N	%	N	%	N	%	N	%	N	%	
I knock and wait for a reply before entering the patient room											
With AIDET	50	45.1	34	30.6	18	16.2	8	7.2	1	0.9	0.3914
Without AIDET	46	35.7	52	40.3	17	13.2	11	8.5	3	2.3	
I acknowledge everyone in the room upon entry											
With AIDET	60	53.6	40	35.7	10	8.9	2	1.8	0	0	0.8576
Without AIDET	69	53.5	50	38.8	8	6.2	2	1.6	0	0	
I address the patient by his/her name											
With AIDET	90	80.4	19	17	2	1.8	1	0.9	0	0	0.9571
Without AIDET	105	81.4	20	15.5	2	1.6	2	1.6	0	0	
I sit down (or am at eye-level) when speaking with the patient											
With AIDET	28	25.2	43	38.7	22	19.8	14	12.6	4	3.6	0.1028
Without AIDET	25	19.4	50	38.8	28	21.8	26	20.2	0	0	
I introduce myself by name to the patient											
With AIDET	103	92	6	5.4	3	2.7	0	0	0	0	0.6388
Without AIDET	117	90.7	10	7.8	2	1.6	0	0	0	0	
I mention my years of experience or specialty											
With AIDET	42	37.5	27	24.1	15	13.4	23	20.5	5	4.5	0.9964
Without AIDET	49	38	29	22.5	18	14	28	21.7	5	3.9	
I clarify/inform the patient of my specific role in his/her care											
With AIDET	60	53.6	36	32.1	12	10.7	4	3.6	0	0	0.1447
Without AIDET	66	51.2	51	39.5	5	3.9	7	5.4	0	0	
I smile and display good eye contact											
With AIDET	98	87.5	12	10.7	1	0.9	1	0.9	0	0	0.3954
Without AIDET	105	82	21	16.4	2	1.6	0	0	0	0	

**Table 2b: The Influence of AIDET™ Training on the Self-Assessed Physician-Patient Communication Skills (Duration and Explanation)**

	Always		Frequently		Half of the time		Infrequently		Never		p-value
<b>If I am performing a bedside procedure, I am there for the entire duration of the procedure</b>											
With AIDET	104	95.4	3	2.8	0	0	1	0.9	1	0.9	0.5403
Without AIDET	119	93	7	5.5	1	0.8	0	0	1	0.8	
<b>I ask the patient "What questions do you have for me?"</b>											
With AIDET	56	50	44	39.3	11	9.8	1	0.9	0	0	0.2705
Without AIDET	78	60.5	43	33.3	8	6.2	0	0	0	0	
<b>I use clear and understandable language (no medical jargon)</b>											
With AIDET	50	50.5	50	45.1	4	3.6	1	0.9	0	0	0.3875
Without AIDET	50	48.8	60	46.5	5	3.9	1	0.8	0	0	
<b>I discuss and thoroughly explain all pertinent diagnoses/treatment plans with the patient</b>											
With AIDET	56	50.5	50	45.1	4	3.6	1	0.9	0	0	0.9939
Without AIDET	63	48.8	60	46.5	5	3.9	1	0.8	0	0	
<b>I discuss and thoroughly explain all available treatment options (e.g. surgery, medicines) and adjunctive therapies (e.g. nutrition, physical therapy)</b>											
With AIDET	37	33.3	57	51.4	14	12.6	3	2.7	0	0	0.9978
Without AIDET	43	33.6	65	50.8	16	12.5	4	3.1	0	0	
<b>I give a time expectation of how long a test or procedure will take, and when the patient should expect the results</b>											
With AIDET	31	27.9	55	49.6	18	16.2	7	6.3	0	0	0.6158
Without AIDET	36	27.9	68	52.7	14	10.9	11	8.5	0	0	
<b>I request the patient's permission prior to performing a test/procedure</b>											
With AIDET	87	77.7	17	15.2	8	7.1	0	0	0	0	0.4652
Without AIDET	98	76	19	14.7	8	6.2	3	2.3	1	0.8	

**Table 2c: The Influence of AIDET™ Training on the Self-Assessed Physician-Patient Communication Skills (Thank You)**

	Always		Frequently		Half of the time		Infrequently		Never		p-value
<b>I graciously end the interview (e.g. thank the patient for his/her time), rather than simply saying goodbye or leaving</b>											
With AIDET	42	37.5	31	27.7	22	19.6	11	9.8	6	5.4	0.0631
Without AIDET	41	31.8	48	37.2	19	14.7	20	15.5	1	0.8	
<b>When discussing multidisciplinary care with the patient, I praise the care provided by other teams (e.g. surgery, medicine)</b>											
With AIDET	37	33.3	42	37.8	20	18	10	9	2	1.8	0.0132
Without AIDET	20	15.6	65	50.8	22	17.2	20	15.6	1	0.8	
<b>I thank the patient for choosing our hospital</b>											
With AIDET	16	14.7	8	7.3	9	8.3	41	37.6	35	32.1	0.0648
Without AIDET	5	3.9	9	7	14	10.9	53	41.1	48	37.2	
<b>I acknowledge everyone in the room prior to leaving</b>											
With AIDET	44	39.6	40	36	15	13.5	11	9.9	1	0.9	0.1831
Without AIDET	36	27.9	61	47.3	22	17.1	10	7.8	0	0	
<b>I leave contact information for the patient (e.g. my card, hospital contact number)</b>											
With AIDET	25	22.5	21	18.9	8	7.2	28	25.2	29	26.1	0.0249
Without AIDET	11	8.6	27	21.1	18	14.1	40	31.3	32	25	

5. Discussion

Increasing focus on patient-centered outcomes has become a driver of modern medical care. The Hospital Consumer Assessment of Healthcare Providers and Systems (H-CAHPS) survey is the first national, standardized, publicly reported survey of patient perspectives of hospital care. Medicare reimbursement is based partly on these publicly available H-CAHPS scores

[ Bush , 2011; <http://www.cms.gov/Medicare/Quality-Initiatives-Patient-Assessment-Instruments/HospitalQualityInits/HospitalHCAHPS.html>].

Due to changes in policy and reimbursement, many hospitals are focused on changing their organizational culture to create more patient-centered healthcare experiences [Stewart, 2007]. A number of studies have demonstrated improved clinical outcomes and even improvements in mortality and adherence with treatment guidelines, associated with increased patient satisfaction scores Glickman, 2010; Jaipaul, 2003]. Patient-centered communication is a critical component of patient-centered care. Communication difficulties between the healthcare providers and the patients or their families are common. Patient-centered communication implies empathy, a high quality of physician communication, clarity of the physician information given to the patient and his or her family, patient participation, patient autonomy support, and a shared decision-making process between the patient and the healthcare provider [ Dwamenal, 2012, Epstein, 2007].

Given the increasing focus on patient-centered outcomes, graduate medical education programs have begun to incorporate patient centered communication, with a number of interventions aimed at incorporating these principles in resident education [ Skillings, 2010; Merckaert; 2013]. The results of our study demonstrated that it was feasible to implement a hospital-wide communication intervention which resulted in modified values and behaviors about communication. In this study, residents and fellows attending the AIDET™ communications skills training considered that they received adequate communication skills training during residency and fellowship, they felt that they were more likely to praise the care provided by other teams and leave contact information for the patient. In addition, more residents and fellows that underwent AIDET™ training than those without the communication training. These results, while modest, demonstrate the feasibility of implementing communication training within the context of graduate medical education. In this study, significantly higher percentages of those receiving the AIDET™ training rated their baseline communication skills as excellent, possibly contributing to the modest differences seen before and after training. This may reflect the fact that patient-centeredness and physician-patient communication skills interventions have been increasingly incorporated into the training of medical schools students during recent years. Potential limitations of the present study include limited baseline information regarding scores for communications skills. In addition, only 27% of the residents and fellows answered the survey, possibly skewing results and under powering possible changes from the intervention. In addition, the current study is limited to only self-assessment and did not take into account patient ratings of physician communication skills or actual observed behaviors. The effect of this intervention on the patient satisfaction and outcomes will be examined in future studies.

## 6. Conclusions

AIDET™ communication skills training is associated with better house staff scores on self-assessed physician-patient communication skills. These results demonstrate the feasibility of implementing communication training within the context of graduate medical education. Further studies are required to evaluate the influence of such interventions on patient satisfaction, healthcare behaviors and patient outcomes.

## 7. References

- America, I.o.M.C.o.Q.o.H.C.i., Crossing the quality chasm: A new health system for the 21st century. 2001: National Academies Press.
- Balint M. (1955). The doctor, his patient, and the illness. *Lancet*, 268, 683-688.
- Bush H. (2011). Doubling down on the patient experience. *Hosp Health Netw*, 85(12), 22-25.
- Dwamena F, Holmes-Rovner M, Gauden CM, et al. (2012). Interventions for providers to promote a patient-centered approach in clinical consultations. *Cochrane Database Syst Rev*, Dec 12, 12:CD003267.
- Epstein RM, Franks P, Fiscella K, et al. (2005). Measuring patient-centered communication in patient-physician consultations: theoretical and practical issues. *Soc Sci Med*, 61(7), 1516-1528.
- Epstein RM, Hudgee T, Carroll J, Meldrum SC, Lardner J, Shields CG. (2007). "Could this be something serious?" Reassurance, uncertainty, and empathy in response to patients' expressions of worry. *J Gen Intern Med*, 22(12), 1731-1739.
- Glickman SW, Boulding W, Manary M, et al. (2010). Patient satisfaction and its relationship with clinical quality and inpatient mortality in acute myocardial infarction. *Circ Cardiovasc Qual Outcomes*, 3(2), 188-195.  
[http://www.studergroupmedia.com/WRIHC/presentations/teaching\\_physician\\_patient\\_communication\\_\(ai-det\).](http://www.studergroupmedia.com/WRIHC/presentations/teaching_physician_patient_communication_(ai-det).)  
<http://www.cms.gov/Medicare/Quality-Initiatives-Patient-Assessment-Instruments/HospitalQualityInits/HospitalHCAHPS.html>
- Jaipaul CK, Rosenthal GE. (2003). Do hospitals with lower mortality have higher patient satisfaction? A regional analysis of patients with medical diagnoses. *Am J Med Qual*, 18(2), 59-65.
- Joyce BL, Scher E, Steenbergh T, Voutt-Goos MJ, et al. (2011). Development of an institutional resident curriculum in communications skills. *J Grad Med Educ* 2011, 3(4), 524-528.
- Merckaert J, Lienard A, Libert y, et al. (2013). Is it possible to improve the breaking bad news skills of residents when a relative is present? A randomized trial. *Br J Cancer*, 109, 2507-2514.
- McCormack LA, Treiman K, Rupert D, et al. (2011). Measuring patient-centered communication in cancer care: a literature review and the development of a systematic approach. *Soc Sci Med*, 72(7), 1085-1095.
- Philibert I, Patow C, Cichon J. Incorporating patient- and family-centered care into resident education: Approaches, benefits, and challenges. *J Grad Med Educ* 2011; 3(2):272-278.
- Skillings JL, Porcerelli JH, Markova T. Contextualizing SEGUE. (2010). Evaluating residents' communication skills within the framework of a structured medical interview. *J Grad Med Educ*, 2(1), 102-107.
- Stewart M, Brown JB, Mammerton J, et al. (2007). Improving communication between doctors and breast cancer patients. *Ann Fam Med*, 5(5), 387-394.
- Verghese A, Brady E, Kapur CC, Horwitz RI. (2011). The bedside evaluation: ritual and reason. *Ann Intern Med*, 155(8), 550-553.