

Developing a Comportment and Communication Tool for Use in Hospital Medicine

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BACKGROUND: An exceptional experience in a hospital is largely influenced by the quality and performance of the hospitalist physician. We set out to establish a metric that would comprehensively assess hospitalists' comportment and communication to establish norms and expectations.

METHODS: The chiefs of hospital medicine divisions at 5 hospitals were asked to identify their "most clinically excellent" hospitalists. An investigator observed each hospitalist during a routine clinical shift and recorded behaviors believed to be associated with excellent comportment and communication using the hospital medicine comportment and communication tool (HMCCOT). Content, internal structure, and relation to other variables validity evidence were established. Analysis of the data for every single patient encounter allowed for the iterative revision of the HMCCOT and the calculation of scores. The mean

HMCCOT score of each provider was compared to their Press Ganey (PG) scores.

RESULTS: The mean age of the 26 participating physicians was 38 years, 13 (50%) were female, and 16 (62%) were of nonwhite race. The mean HMCCOT score was 61 (interquartile range = 37–80). HMCCOT score and PG were moderately correlated (adjusted Pearson correlation = 0.45, $P = 0.047$).

CONCLUSIONS: This study represents a first step to specifically characterize comportment and communication in hospital medicine. Because hospitalists spend only a small proportion of their clinical time in direct patient care, it is imperative that excellent comportment and communication be established as a goal for every encounter. *Journal of Hospital Medicine* 2016;11:853–858. © 2016 Society of Hospital Medicine

In 2014, there were more than 40,000 hospitalists in the United States, and approximately 20% were employed by academic medical centers.¹ Hospitalist physicians groups are committed to delivering excellent patient care. However, the published literature is limited with respect to defining optimal care in hospital medicine.

Patient satisfaction surveys, such as Press Ganey (PG)² and Hospital Consumer Assessment of Healthcare Providers and Systems,³ are being used to assess patients' contentment with the quality of care they receive while hospitalized. The Society of Hospital Medicine, the largest professional medical society representing hospitalists, encourages the use of patient satisfaction surveys to measure hospitalist providers' quality of patient care.⁴ There are, however, several problems with the current methods. First, the attribution to specific providers is questionable. Second, recall about the provider by the patients may be poor because surveys are sent to patients days after they

return home. Third, the patients' recovery and health outcomes are likely to influence their assessment of the doctor. Finally, feedback is known to be most valuable and transformative when it is specific and given in real time. Thus, a tool that is able to provide feedback at the encounter level should be more helpful than a tool that offers assessment at the level of the admission, particularly when it can be also delivered immediately after the data are collected.

Comportment has been used to describe both the way a person behaves and also the way she carries herself (ie, her general manner).⁵ Excellent comportment and communication can serve as the foundation for delivering patient-centered care.^{6–8} Patient centeredness has been shown to improve the patient experience and clinical outcomes, including compliance with therapeutic plans.^{9–11} Respectful behavior, etiquette-based medicine, and effective communication also lay the foundation upon which the therapeutic alliance between a doctor and patient can be built.

The goal of this study was to establish a metric that could comprehensively assess a hospitalist provider's comportment and communication skills during an encounter with a hospitalized patient.

METHODS

Study Design and Setting

An observational study of hospitalist physicians was conducted between June 2013 and December 2013 at 5 hospitals in Maryland and Washington DC. Two

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are academic medical centers (Johns Hopkins Hospital and Johns Hopkins Bayview Medical Center [JHBMC]), and the others are community hospitals (Howard County General Hospital [HCGH], Sibley Memorial Hospital [SMC], and Suburban Hospital). These 5 hospitals, across 2 large cities, have distinct culture and leadership, each serving different populations.

Subjects

In developing a tool to measure communication and comportment, we needed to observe physician–patient encounters wherein there would be a good deal of variability in performance. During pilot testing, when following a few of the most senior and respected hospitalists, we noted encounters during which they excelled and others where they performed less optimally. Further, in following some less-experienced providers, their skills were less developed and they were uniformly missing most of the behaviors on the tool that were believed to be associated with optimal communication and comportment. Because of this, we decided to purposively sample the strongest clinicians at each of the 5 hospitals in hopes of seeing a range of scores on the tool.

The chiefs of hospital medicine at the 5 hospitals were contacted and asked to identify their “most clinically excellent” hospitalists, namely those who they thought were most clinically skilled within their groups. Because our goal was to observe the top tier (approximately 20%) of the hospitalists within each group, we asked each chief to name a specific number of physicians (eg, 3 names for 1 group with 15 hospitalists, and 8 from another group with 40 physicians). No precise definition of “most clinically excellent” hospitalists was provided to the chiefs. It was believed that they were well positioned to select their best clinicians because of both subjective feedback and objective data that flow to them. This postulate may have been corroborated by the fact that each of them efficiently sent a list of their top choices without any questions being asked.

The 29 hospitalists (named by their chiefs) were in turn emailed and invited to participate in the study. All but 3 hospitalists consented to participate in the study; this resulted in a cohort of 26 who would be observed.

Tool Development

A team was assembled to develop the hospital medicine comportment and communication observation tool (HMCCOT). All team members had extensive clinical experience, several had published articles on clinical excellence, had won clinical awards, and all had been teaching clinical skills for many years. The team’s development of the HMCCOT was extensively informed by a review of the literature. Two articles that most heavily influenced the HMCCOT’s development were Christmas et al.’s paper describing 7 core

domains of excellence, 2 of which are intimately linked to communication and comportment,¹² and Kahn’s text that delineates behaviors to be performed upon entering the patient’s room, termed “etiquette-based medicine.”⁶ The team also considered the work from prior time–motion studies in hospital medicine,^{7,13} which led to the inclusion of temporal measurements during the observations. The tool was also presented at academic conferences in the Division of General Internal Medicine at Johns Hopkins and iteratively revised based on the feedback. Feedback was sought from people who have spent their entire career studying physician–patient relationships and who are members of the American Academy on Communication in Healthcare. These methods established content validity evidence for the tool under development. The goal of the HMCCOT was to assess behaviors believed to be associated with optimal comportment and communication in hospital medicine.

The HMCCOT was pilot tested by observing different JHBMC hospitalists patient encounters and it was iteratively revised. On multiple occasions, 2 authors/investigators spent time observing JHBMC hospitalists together and compared data capture and levels of agreement across all elements. Then, for formal assessment of inter-rater reliability, 2 authors observed 5 different hospitalists across 25 patient encounters; the κ coefficient was 0.91 (standard error = 0.04). This step helped to establish internal structure validity evidence for the tool.

The initial version of the HMCCOT contained 36 elements, and it was organized sequentially to allow the observer to document behaviors in the order that they were likely to occur so as to facilitate the process and to minimize oversight. A few examples of the elements were as follows: open-ended versus a close-ended statement at the beginning of the encounter, hospitalist introduces himself/herself, and whether the provider smiles at any point during the patient encounter.

Data Collection

One author scheduled a time to observe each hospitalist physician during their routine clinical care of patients when they were not working with medical learners. Hospitalists were naturally aware that they were being observed but were not aware of the specific data elements or behaviors that were being recorded.

The study was approved by the institutional review board at the Johns Hopkins University School of Medicine, and by each of the research review committees at HCGH, SMC, and Suburban hospitals.

Data Analysis

After data collection, all data were deidentified so that the researchers were blinded to the identities of the physicians. Respondent characteristics are presented

TABLE 1. Characteristics of the Hospitalist Physicians Based on Their Hospital Medicine Comportment and Communication Observation Tool Score

	Total Study Population, n = 26	HMCCOT Score \leq 60, n = 14	HMCCOT Score >60, n = 12	P Value*
Age, mean (SD)	38 (5.6)	37.9 (5.6)	38.1 (5.7)	0.95†
Female, n (%)	13 (50)	6 (43)	7 (58)	0.43
Race, n (%)				
Caucasian	10 (38)	5 (36)	5 (41)	0.31
Asian	13 (50)	8 (57)	5 (41)	
African/African American	2 (8)	0 (0)	2 (17)	
Other	1 (4)	1 (7)	0 (0)	
Clinical experience >6 years, n (%)	12 (46)	6 (43)	6 (50)	0.72
Clinical workload >70%	17 (65)	10 (71)	7 (58)	0.48
Academic hospitalist, n (%)	12 (46)	5 (36)	7 (58)	0.25
Hospital				0.47
JHBMC	8 (31)	3 (21.4)	5 (41)	
JHH	4 (15)	2 (14.3)	2 (17)	
HCGH	5 (19)	3 (21.4)	2 (17)	
Suburban	6 (23)	3 (21.4)	3 (25)	
SMC	3 (12)	3 (21.4)	0 (0)	
Minutes spent observing hospitalist per shift, mean (SD)	280 (104.5)	280.4 (115.5)	281.4 (95.3)	0.98†
Average time spent per patient encounter in minutes, mean (SD)	10.8 (8.9)	8.7 (9.1)	13 (8.1)	0.001†
Proportion of observed patients who were new to provider, %	97 (53.5)	37 (39.7)	60 (68.1)	0.001

NOTE: Abbreviations: HCGH, Howard County General Hospital; HMCCOT, Hospital Medicine Comportment and Communication Observation Tool; JHBMC, Johns Hopkins Bayview Medical Center; JHH, Johns Hopkins Hospital; SD, standard deviation; SMC, Sibley Memorial Hospital. * χ^2 with Yates-corrected P value where at least 20% of frequencies were <5. †Unpaired t test statistic

as proportions and means. Unpaired *t* test and χ^2 tests were used to compare demographic information, and stratified by mean HMCCOT score. The survey data were analyzed using Stata statistical software version 12.1 (StataCorp LP, College Station, TX).

Further Validation of the HMCCOT

Upon reviewing the distribution of data after observing the 26 physicians with their patients, we excluded 13 variables from the initial version of the tool that lacked discriminatory value (eg, 100% or 0% of physicians performed the observed behavior during the encounters); this left 23 variables that were judged to be most clinically relevant in the final version of the HMCCOT. Two examples of the variables that were excluded were: uses technology/literature to educate patients (not witnessed in any encounter), and obeys posted contact precautions (done uniformly by all). The HMCCOT score represents the proportion of observed behaviors (out of the 23 behaviors). It was computed for each hospitalist for every patient encounter. Finally, relation to other variables validity evidence would be established by comparing the mean HMCCOT scores of the physicians to their PG scores from the same time period to evaluate the correlation between the 2 scores. This association was assessed using Pearson correlations.

RESULTS

The average clinical experience of the 26 hospitalist physicians studied was 6 years (Table 1). Their mean age was 38 years, 13 (50%) were female, and 16 (62%) were of nonwhite race. Fourteen hospitalists

(54%) worked at 1 of the nonacademic hospitals. In terms of clinical workload, most physicians (n = 17, 65%) devoted more than 70% of their time working in direct patient care. Mean time spent observing each physician was 280 minutes. During this time, the 26 physicians were observed for 181 separate clinical encounters; 54% of these patients were new encounters, patients who were not previously known to the physician. The average time each physician spent in a patient room was 10.8 minutes. Mean number of observed patient encounters per hospitalist was 7.

The distribution of HMCCOT scores was not statistically significantly different when analyzed by age, gender, race, amount of clinical experience, clinical workload of the hospitalist, hospital, time spent observing the hospitalist (all *P* > 0.05). The distribution of HMCCOT scores was statistically different in new patient encounters compared to follow-ups (68.1% vs 39.7%, *P* ≤ 0.001). Encounters with patients that generated HMCCOT scores above versus below the mean were longer (13 minutes vs 8.7 minutes, *P* ≤ 0.001).

The mean HMCCOT score was 61 (standard deviation [SD] = 10.6), and it was normally distributed (Figure 1). Table 2 shows the data for the 23 behaviors that were objectively assessed as part of the HMCCOT for the 181 patient encounters. The most frequently observed behaviors were physicians washing hands after leaving the patient's room in 170 (94%) of the encounters and smiling (83%). The behaviors that were observed with the least regularity were using an "empathic statement" (26% of encounters), and employing "teach-back" (13% of

encounters). A common method of “demonstrating interest in the patient as a person,” seen in 41% of encounters, involved physicians asking about patients’ personal histories and their interests.

The average composite PG scores for the physician sample was 38.95 (SD = 39.64). A moderate correlation was found between the HMCCOT score and PG score (adjusted Pearson correlation: 0.45, $P = 0.047$).

DISCUSSION

In this study, we followed 26 hospitalist physicians during routine clinical care, and we focused intently

on their communication and their comportment with patients at the bedside. Even among clinically respected hospitalists, the results reveal that there is wide variability in comportment and communication practices and behaviors at the bedside. The physicians’ HMCCOT scores were associated with their PG scores. These findings suggest that improved bedside communication and comportment with patients might translate into enhanced patient satisfaction.

This is the first study that honed in on hospitalist communication and comportment. With validity evidence established for the HMCCOT, some may elect to more explicitly perform these behaviors themselves, and others may wish to watch other hospitalists to give them feedback that is tied to specific behaviors. Beginning with the basics, the hospitalists we studied introduced themselves to their patients at the initial encounter 78% of the time, less frequently than is done by primary care clinicians (89%) but more consistently than do emergency department providers (64%).⁷ Other variables that stood out in the HMCCOT was that teach-back was employed in only 13% of the encounters. Previous studies have shown that teach-back corroborates patient comprehension and can be used to engage patients (and caregivers) in realistic goal setting and optimal health service utilization.¹⁴ Further, patients who clearly understand their postdischarge plan are 30% less likely to be

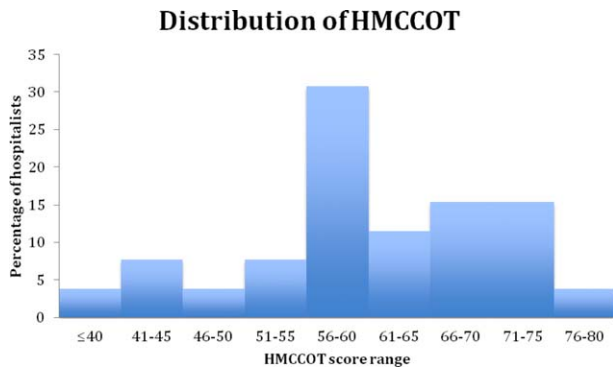


FIG. 1. Distribution of mean hospital medicine comportment and communication tool (HMCCOT) scores for the 26 hospitalist providers who were observed.

TABLE 2. Objective and Subjective Data Making Up the Hospital Medicine Comportment and Communication Observation Tool Score Assessed While Observing 26 Hospitalist Physicians

Variables	All Visits Combined, n = 181	HMCCOT Score <60, n = 93	HMCCOT Score >60, n = 88	P Value*
Objective observations, n (%)				
Washes hands after leaving room	170 (94)	83 (89)	87 (99)	0.007
Discusses plan for the day	163 (91)	78 (84)	85 (99)	<0.001
Does not interrupt the patient	159 (88)	79 (85)	80 (91)	0.21
Smiles	149 (83)	71 (77)	78 (89)	0.04
Washes hands before entering	139 (77)	64 (69)	75 (85)	0.009
Begins with open-ended question	134 (77)	68 (76)	66 (78)	0.74
Knocks before entering the room	127 (76)	57 (65)	70 (89)	<0.001
Introduces him/herself to the patient	122 (67)	45 (48)	77 (88)	<0.001
Explains his/her role	120 (66)	44 (47)	76 (86)	<0.001
Asks about pain	110 (61)	45 (49)	65 (74)	0.001
Asks permission prior to examining	106 (61)	43 (50)	63 (72)	0.002
Uncovers body area for the physical exam	100 (57)	34 (38)	66 (77)	<0.001
Discusses discharge plan	99 (55)	38 (41)	61 (71)	<0.001
Sits down in the patient room	74 (41)	24 (26)	50 (57)	<0.001
Asks about patient’s “feelings”	58 (33)	17 (19)	41 (47)	<0.001
Shakes hands with the patient	57 (32)	17 (18)	40 (46)	<0.001
Uses “teach-back”	24 (13)	4 (4.3)	20 (24)	<0.001
Subjective observations, n (%)				
Avoids “medical jargon”	160 (89)	85 (91)	83 (95)	0.28
Demonstrates interest in patient as a person	72 (41)	16 (18)	56 (66)	<0.001
Touches appropriately	62 (34)	21 (23)	41 (47)	0.001
Shows sensitivity to patient modesty	57 (33)	15 (17)	42 (100)	0.002
Engages in nonmedical conversation	54 (30)	10 (11)	44 (51)	<0.001
Uses “empathic statement”	47 (26)	9 (10)	38 (43)	<0.001

NOTE: Abbreviations: HMCCOT, Hospital Medicine Comportment and Communication Observation Tool. * χ^2 with Yates-corrected P value where at least 20% of frequencies were <5.

readmitted or visit the emergency department.¹⁴ The data for our group have helped us to see areas of strengths, such as hand washing, where we are above compliance rates across hospitals in the United States,¹⁵ as well as those matters that represent opportunities for improvement such as connecting more deeply with our patients.

Tackett et al. have looked at encounter length and its association with performance of etiquette-based medicine behaviors.⁷ Similar to their study, we found a positive correlation between spending more time with patients and higher HMCCOT scores. We also found that HMCCOT scores were higher when providers were caring for new patients. Patients' complaints about doctors often relate to feeling rushed, that their physicians did not listen to them, or that information was not conveyed in a clear manner.¹⁶ Such challenges in physician–patient communication are ubiquitous across clinical settings.¹⁶ When successfully achieved, patient-centered communication has been associated with improved clinical outcomes, including adherence to recommended treatment and better self-management of chronic disease.^{17–26} Many of the components of the HMCCOT described in this article are at the heart of patient-centered care.

Several limitations of the study should be considered. First, physicians may have behaved differently while they were being observed, which is known as the Hawthorne effect. We observed them for many hours and across multiple patient encounters, and the physicians were not aware of the specific types of data that we were collecting. These factors may have limited the biases along such lines. Second, there may be elements of optimal comportment and communication that were not captured by the HMCCOT. Hopefully, there are not big gaps, as we used multiple methods and an iterative process in the refinement of the HMCCOT metric. Third, one investigator did all of the observing, and it is possible that he might have missed certain behaviors. Through extensive pilot testing and comparisons with other raters, the observer became very skilled and facile with such data collection and the tool. Fourth, we did not survey the same patients that were cared for to compare their perspectives to the HMCCOT scores following the clinical encounters. For patient perspectives, we relied only on PG scores. Fifth, quality of care is a broad and multidimensional construct. The HMCCOT focuses exclusively on hospitalists' comportment and communication at the bedside; therefore, it does not comprehensively assess care quality. Sixth, with our goal to optimally validate the HMCCOT, we tested it on the top tier of hospitalists within each group. We may have observed different results had we randomly selected hospitalists from each hospital or had we conducted the study at hospitals in other geographic regions. Finally, all of the doctors observed worked at hospitals in the Mid-Atlantic region. However, these

five distinct hospitals each have their own cultures, and they are led by different administrators. We purposely chose to sample both academic as well as community settings.

In conclusion, this study reports on the development of a comportment and communication tool that was established and validated by following clinically excellent hospitalists at the bedside. Future studies are necessary to determine whether hospitalists of all levels of experience and clinical skill can improve when given data and feedback using the HMCCOT. Larger studies will then be needed to assess whether enhancing comportment and communication can truly improve patient satisfaction and clinical outcomes in the hospital.

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