

ASSESSING THE EFFECTIVENESS OF PHYSICIAN COMMUNICATION

Mary Catherine Beach, MD, MPH

Effectiveness of communication

Communication Measurement

- Patient reports/ratings
- Audio recorded analysis
 - Quantitative coding systems
 - Descriptive
 - Normative
 - Qualitative analysis “basic science”
 - Mixed methods
 - Conversation analysis
 - Integrated analysis

Broad

Specific



Most studies are observational

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←————→
Broad Specific

Outcomes Measurement[^]

- Clinical outcomes
- Adherence
- Behavior change
- Patient interpersonal experience
 - Malpractice suits
- Effective information exchange
 - Patient discloses important info
 - Patient understands diagnosis and treatment
- “Good” decisions

[^] not exhaustive lists

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	Univariate			Multivariate ²		
	OR ⁽¹⁾	95% CI	p-value	OR ⁽¹⁾	95% CI	p-value
Receipt of HAART	1.54	1.31-1.79	<0.001	1.50	1.22-1.84	<0.001
Adherence To HAART	1.49	1.15-1.93	0.002	1.41	1.01-1.98	0.043
<400 copies/ μL HIV RNA	1.32	1.13-1.54	<0.001	1.22	1.00-1.50	0.049

(1) Patients who answered 'yes' compared to patients who answered 'no' or 'don't know' that their provider knows them as a person

(2) Controlling for patient age, sex, race/ethnicity, alcohol & drug use, health beliefs, social stress, length of time in clinic, missed appts, and quality of life

POPULATIONS AT RISK

Is the Quality of the Patient-Provider Relationship Associated with Better Adherence and Health Outcomes for Patients with HIV?

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RESPONSE

Why do we measure the impact of communication on clinical outcomes?

To convince people that it is important?



Why should we measure communication?

To figure out how to make something better

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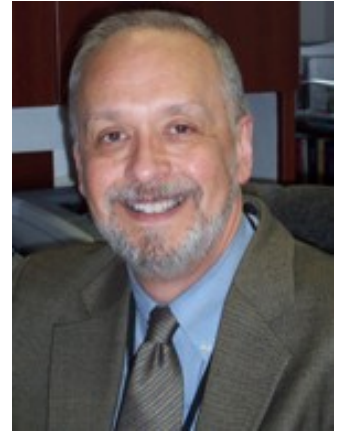
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Mixed Methods

Does the use of first-person plural foster partnership with patients?



*“In lieu of a cancer-free bill, but with a good deal less of his old caution, he repeated that we were in far better shape than we might have been. I noted his first-time **use of the we** and began comprehending the stake he’d had in my case from the start...”*



Reynolds Price, *A Whole New Life*

There were 157 distinct instances of the first-person plural in 92/418 encounters.

Table 2. Association of First Person Plural Statements with Patient Experience of Care^a

	Unadjusted		Adjusted ^b	
	OR	(95% CI)	OR	(95% CI)
High ratings of provider communication	0.56	(0.34–0.94)	0.57	(0.33–0.96)
High ratings of provider's participatory decision-making style	1.09	(0.68–1.75)	1.11	(0.68–1.82)
High overall satisfaction	0.92	(0.56–1.49)	0.98	(0.59–1.62)

^aComparing encounters with first person plural statements to those without first person plural statements, all analyses (adjusted and unadjusted) account for clustering of patients within providers using GEE

^bFurther adjusted for patient age, patient depression, and provider training (physician vs. non-physician). Further adjustment for being on ART and provider age did not substantively change the results

Features of First Person Plural Statements

NEGATIVE FEATURES (49%)

Persuasion

“That’s our priority now.”

Indirect Communication (“royal” we)

“What can we do to improve your diet?”

“Why don’t we make a New Year’s resolution that...”

Ambiguous Use

“Let’s just see what we can do.”

POSITIVE FEATURES (66%)

Addresses patient goals

“Alright, well let’s take that off the table for today. And let’s get you moved.”

Reflection on shared past

“And we worked on it, like any relationship, it’s a process, right?”

Involves patient in healthcare process

“We can look at the results together. And then we can make a decision.”

Creates an understanding between provider and patient

“I’m going to reread the note to you so that we’re both on the same page.”

Creation of Partnership Score

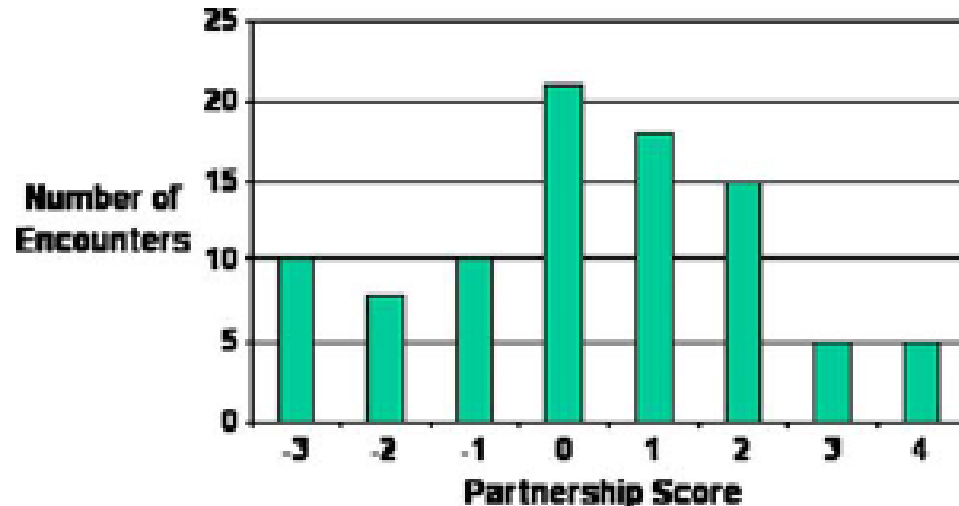


Figure 2. Distribution of partnership scores in 92 encounters with first person plural statements.

- Significantly increased odds of patient rating the provider's communication skills highly with each one-point increase in the partnership score (OR 1.46, 95% CI 1.13-1.90)

“We’ll Do this Together”: The Role of the First Person Plural in Fostering Partnership in Patient-physician Relationships

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¹Johns Hopkins University, Baltimore, MD, USA; ²Oregon Health Science University, Portland, OR, USA; ³New England Medical Center, Boston, MA, USA; ⁴Wayne State University, Detroit, MI, USA; ⁵Saint Lukes-Roosevelt Hospital, New York, NY, USA.

BACKGROUND: Partnership is integral to therapeutic relationships, yet few studies have examined partnership-fostering communication behaviors in the clinic setting. We conducted this study to better understand how statements in which physicians use the first person plural might foster partnership between patient and provider.

METHODS: We audio-recorded encounters between 45 HIV providers and 418 patients in the Enhancing Communication and HIV Outcomes (ECHO) Study. We used the Roter Interaction Analysis System (RIAS) to code for statements made by the physician that used the first person plural to refer to themselves and their patient. Using multiple logistic regression, we examined the associations between the occurrence of one or more first person plural statements with patient ratings of provider communication. To better understand the meaning of first person plural statements, we conducted a qualitative analysis.

what we can do”), although there were also positive statements that involved patients in the health-care process, contributed to a mutual understanding, and addressed the patients’ goals.

CONCLUSIONS: Contrary to our hypotheses, use of first person plural was not associated with higher ratings of provider communication, probably because some of these statements were overtly persuasive, indirect, or ambiguous. Physicians should become aware of benefits and pitfalls of using the first person plural with patients. Further research is needed to determine the most effective methods through which providers can build alliances with patients.

KEY WORDS: patient-provider relations; patient-provider communication; patient-centered care; partnership; HIV/AIDS.

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Integrated Communication Analysis

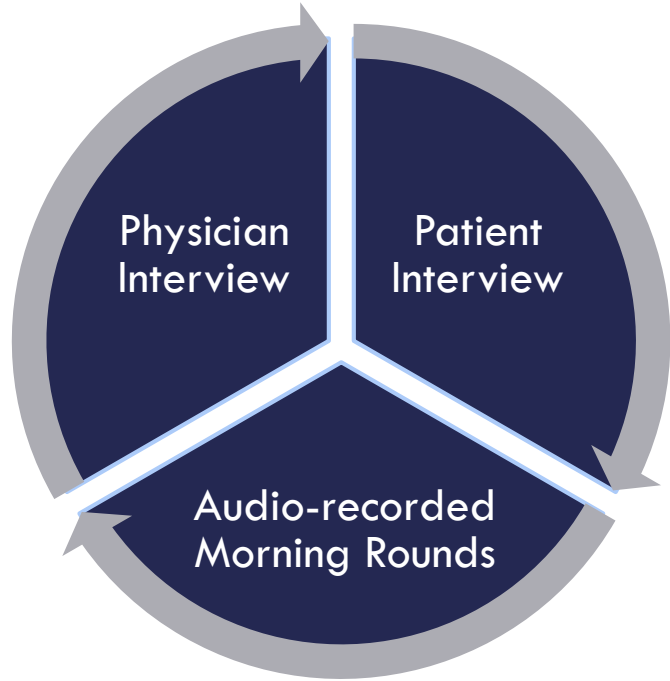
Do hospitalized patients understand what is happening to them?

How can we communicate for optimal understanding?

The Greenwall Foundation



Methods



- Subjects
 - 9 hospitalists
 - 29 patients
- Data Collection
 - Audio-recorded morning rounds
 - Physician interview
 - Patient interview

Physician Estimation of Patient Understanding

	Patient misunderstands	Patient understands
Physician suspects misunderstanding	Few examples	NEVER HAPPENS
Physician suspects understanding	Many examples	Many examples

Estimation of Patient Understanding

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Physicians overestimate patient understanding

Patient: *“Nice meeting you. You covered quite a bit there. It’s a lot to take in (laughs).”*

MD: *It is.*

Patient: *And remember.*



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Patient: *And remember.*



RA: Can you describe what’s going on to improve your health?

Patient: To improve my health. What’s going on. Yea, the doctors are coming in to see me, um, there running um, the proper tests that they need to run? Can’t quite describe all the tests because they use terminology.

Physicians overestimate patient understanding

Patient: *“Nice meeting you. You covered quite a bit there. It’s a lot to take in (laughs).”*

MD: *It is.*

Patient: *And remember.*

RA: Do you think this patient understands this plan?

Physician: Yes. I do.

RA: What makes you think he understands?

Physician: Uh, besides that he appeared to comprehend what the next steps of the plan are going to be, and that he asked good questions about it



RA: Can you describe what’s going on to improve your health?

Patient: To improve my health. What’s going on. Yea, the doctors are coming in to see me, um, there running um, the proper tests that they need to run? Can’t quite describe all the tests because they use terminology.

Physicians overestimate patient understanding

RA: And do you think she understands everything that's going to happen?

MD: Yes, I think she understands because she reciprocated appropriately.

RA: Ok. What do you mean she reciprocated appropriately?

MD: Yea because when I explained to her she seems like, nodded her head and she said ok. Overall, her body language [suggests] she's understanding what I'm saying.



RA: And do you know what they doctors plan in for you from here on out?

Patient: No. I haven't seen the doctor yet today.

RA: The woman that just came in.

Patient: Yea. Well I seen her. Yea.

RA: Yea.

Patient: Yea. But she didn't say, she just said she would see me you know, tomorrow or whatever. She didn't say how long I'd be here.

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*Yet this doctor explained exactly what was happening
And this patient gave no indication that they didn't understand in the visit*

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Patient: No. I haven't seen the doctor yet today.

RA: The woman that just came in.

Patient: Yea. Well I seen her. Yea.

RA: Yea.

Patient: Yea. But she didn't say, she just said she would see me you know, tomorrow or whatever. She didn't say how long I'd be here.

Estimation of Patient Understanding

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Physician suspects understanding	Many examples	Many examples

Hospitalists who accurately guess patient doesn't understand almost always use the 'teach back' method

- Physician: *I know your heads probably feeling a little fuzzy right now.*
- Patient: *Just a little.*
- Physician: *You think you can give me a brief summary of what we're going to do?*
- Patient: *No.*
- Physician: *(laughs). Ok.*
- Patient: *Problems 1 at a time, eliminate them, till you get to the root, to the root of the problem.*
- Physician: *Ok.*
- Patient: *At least that's the way I'd do it.*
- Physician: *Are you comfortable not knowing the specifics at this point? Or would you like me to go over it again?*
- Patient: *No they probably told me and I can't remember any of it anyway.*
- Physician: *Ok. I can also write it down if you want.*

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Conversation Analysis


Which questions elicit accurate disclosure of ARV non-adherence when talking to patients?



Study Aims

1. Assess how providers ask about ARV medication adherence
2. Determine the types of questions that elicit higher rates of accurate patient disclosure

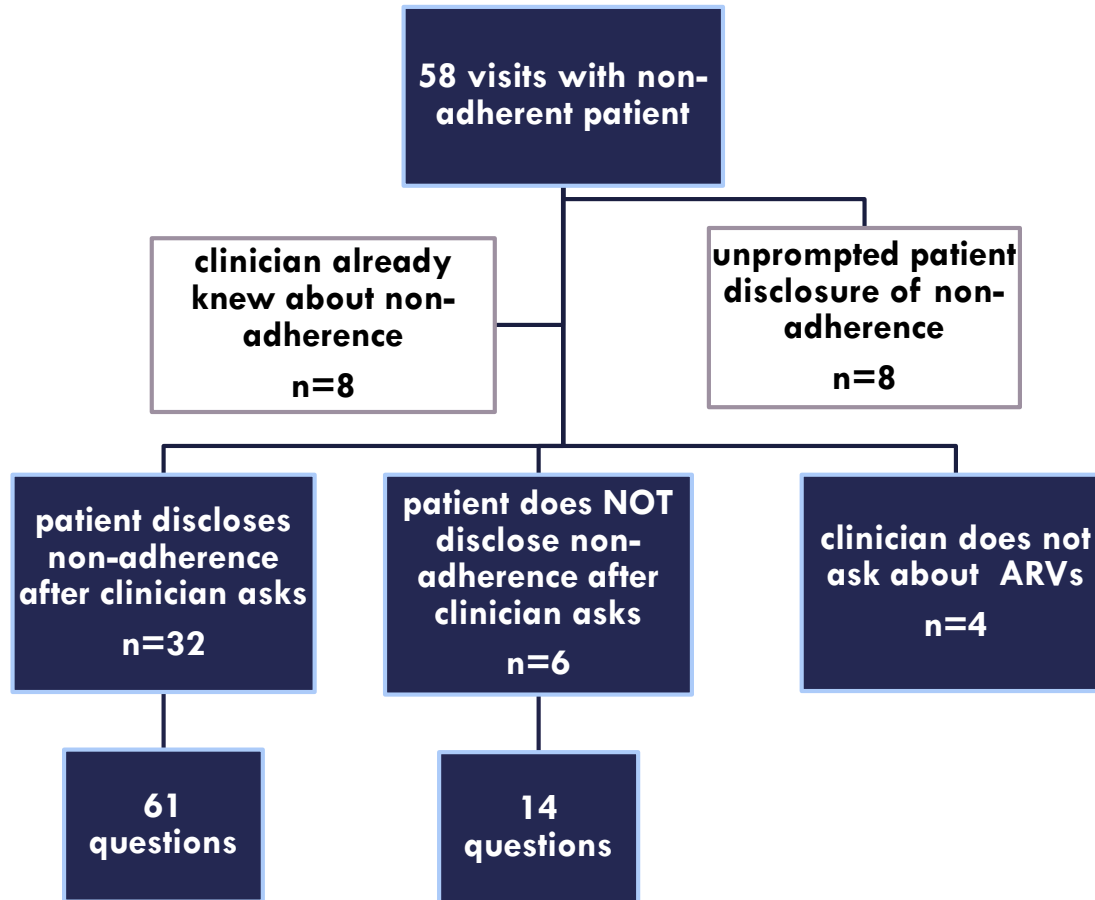
Study Subjects and Setting

- Enhancing Communication and HIV Outcomes (ECHO) Study
 - 45 providers and 434 HIV-positive patients
 - 4 sites: Baltimore, NYC, Portland, Detroit
- 
- Our sample: patients who reported non-adherence in 3-day recall conducted by research assistant
 - 58 patients and 34 providers

Analysis

□ Mixed Methods: Qualitative and Quantitative

1. Isolate patient-provider dialogue about medication adherence
2. Identify all provider questions and note patient response
3. Generate provider question categories inductively
(**conversation analysis**)
4. Code all provider questions into different question types
5. Calculate relative risk of accurate disclosure by question type



Primary Question Categories and Disclosure Rates

Question Type	Number of Questions	Disclosure Rate	Examples
Broad	12	33%	<i>How you been doin' on taking your medications?</i>
Clarifying	23	13%	<i>Are you still taking the Combivir, Viread and Sustiva? So are you on the same medicines now, or did you change any of them?</i>
Positively-framed	17	29%	<i>Do you take your HIV medicines everyday?</i>
Negatively-framed	23	83%	<i>Have you missed any doses in the last four weeks?</i>

Results

- Negatively-framed questions 3.64 times more likely to elicit accurate disclosure as any other question type

	Unadjusted		Adjusted [†]	
	Relative Risk	95% CI	Relative Risk	95% CI
Negatively-framed				
no	1.00		1.00	
yes	3.77***	2.23 - 6.37	3.64***	2.09- 6.34
Order				
1	1.00		1.00	
2	1.17	0.61- 2.25	0.80	0.49- 1.32
3	2.19**	1.26- 3.81	1.20	0.65- 2.23
Leading				
no	1.00		1.00	
yes	1.69*	0.97- 2.94	1.15	0.64- 2.06

[†]*p*<0.10, ***p*<0.05, ****p*<0.001

Discussion

- Broad and clarifying questions: Not a sufficient “ask”
 - Broad too non-specific
 - Clarifying- aim is not to assess adherence and patient does not answer regarding adherence
- Missed vs. Taking
 - “Missed” is clear and normalizing
 - “Taking” is open to interpretation (e.g. “taking regularly” requires interpretation of “*regularly*”)

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Work in Progress: Shared decision-making

- Elements of informed decision-making theoretically-derived
- All studies demonstrate extensive failure to meet even most basic criteria - Why?
- Currently examining shared decision-making in (1) initiation of anti-retroviral therapy and (2) pediatric otolaryngology



Effectiveness of communication

What about experimental designs?

Outcomes Measurement

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What about experimental designs?

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Experimental Designs

Physician Patient-Centeredness and Patient Decision Making: A Randomized Study Using Video Vignettes



Patient-centered communication (PCC)

- PCC is associated with patient satisfaction
- Unclear whether this association is causal
 - ▣ Possible that PCC is a marker of “easier” encounters
- Limited research on whether PCC is associated with other dimensions of care

Research Question

- Does physicians' patient-centered communication impact:
 - ▣ Perceptions and ratings of the physician
 - ▣ Decision making
- ...independent of other patient and physician characteristics and behaviors?

DVD-based video vignettes

- “Standardized physicians” played by 8 professional actors
- Cardiologist discussing CATH results, recommending CABG
- Filmed from patient point of view (POV)
 - Patient heard but not seen
 - Each vignette done with male and female patient
- Uniform script, dress, behavior
- Each actor did 2 different vignettes
 - Low vs. high “patient-centeredness”

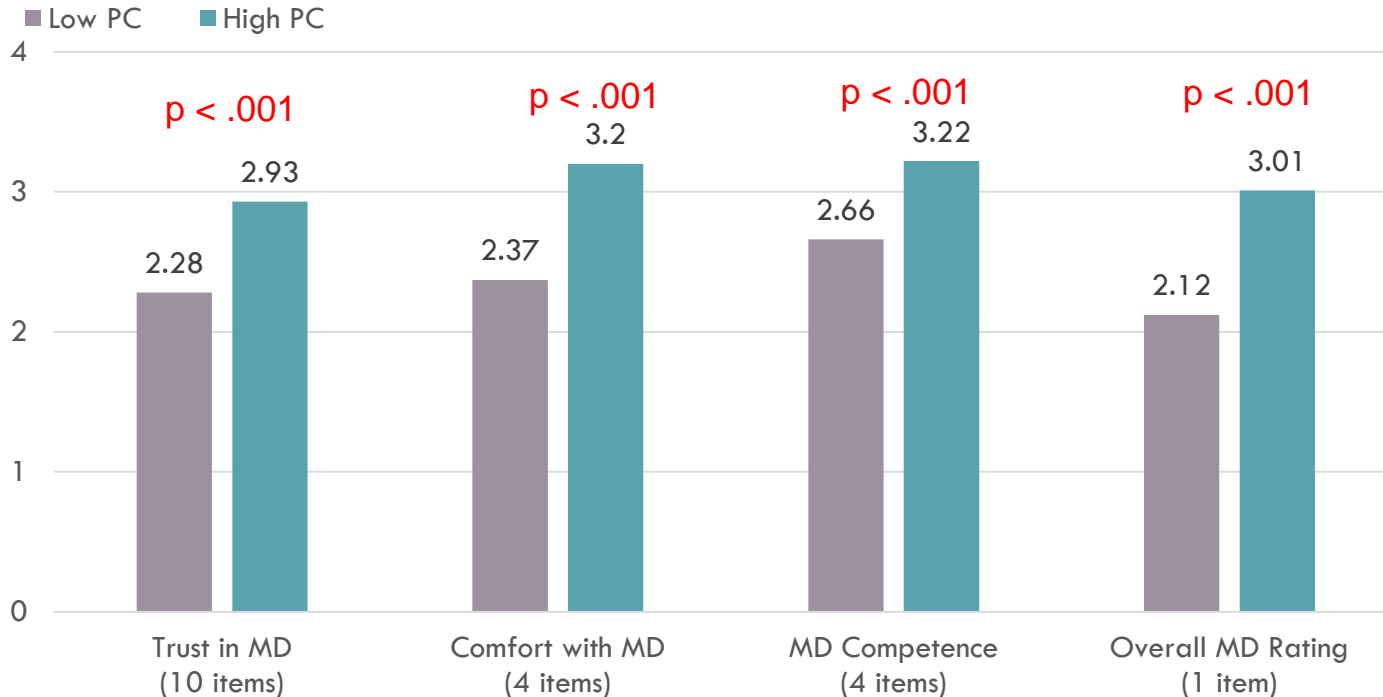
Vignette Versions

Patient Centeredness	Low	High
Patient participation	Low	High
Affect	Neutral, businesslike	Positive, friendly
Language	Biomedical/complex	Lay
Information giving	Low	High
Empathy	Low	High
Time	4 minutes	5 min, 20 sec
Eye contact	Low	High

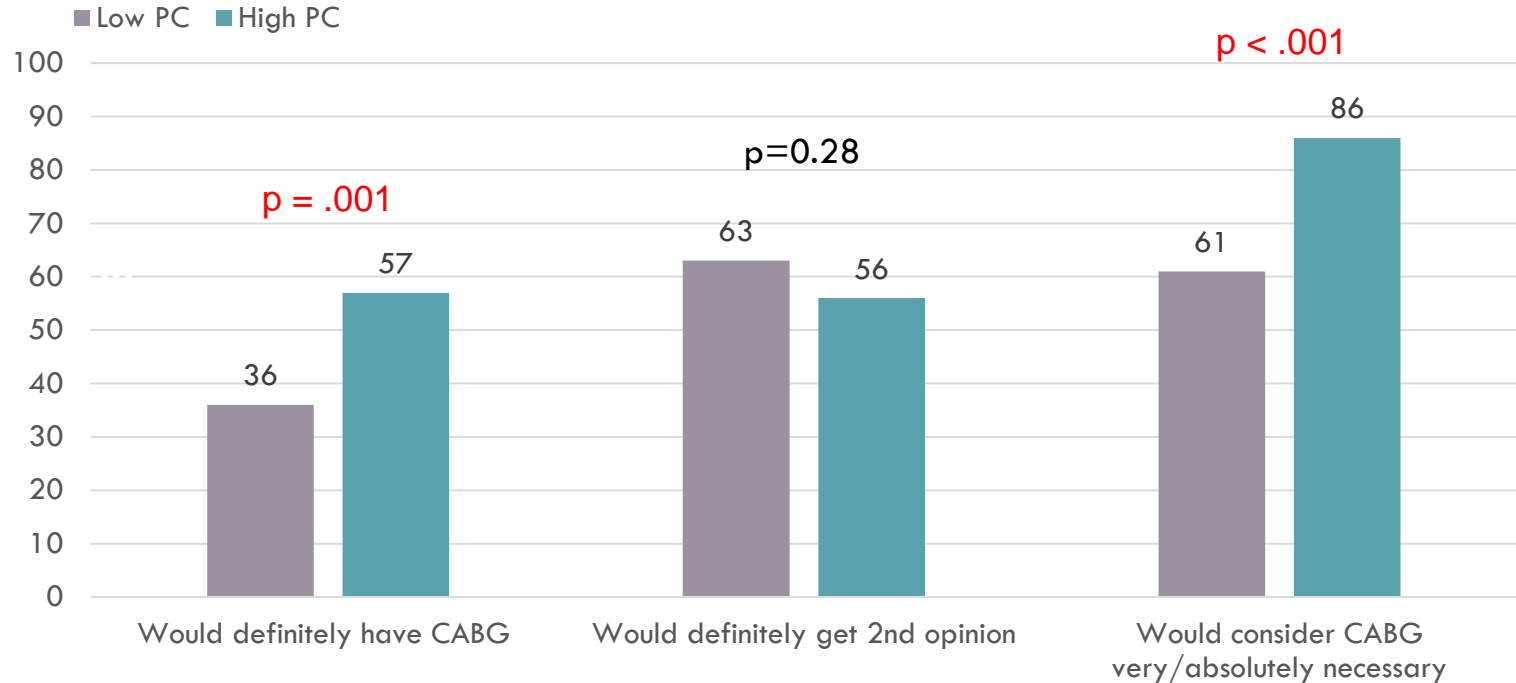
Study Subjects and Data Collection

- Community internal medicine practice
- Patients ≥ 40 with CAD or CAD risk factors
- Randomized to view one of 16 vignettes
 - Gender of patient in video matched to subject gender
- Post-video questionnaire
 - Likelihood of undergoing CABG, ratings of video MD

Vignette Version: Patient Ratings of Physician



Vignette Version: Patient Decision Making



Summary

- When physicians delivered information using more patient-centered communication, patients reported
 - ▣ greater trust and comfort
 - ▣ greater perceived competence
 - ▣ more willingness to undergo recommended procedure
- But...we don't know exactly which of the elements was most important

Work in Progress: Language in Records

- Review medical records: sickle cell disease with pain crises
- Randomized study comparing two vignette versions
 - ▣ ‘stigmatizing’ vs. ‘neutral’ language

Stigmatizing	Neutral
Mr. R is a 28-year old sickle cell patient with chronic left hip osteomyelitis who comes to the ED stating he has 10/10 pain “all up in my arms and legs.”	Mr. R is a 28-year old man with sickle cell disease and chronic left hip osteomyelitis who comes to the ED with 10/10 pain in his arms and legs.

- Impact of language on:
 - ▣ Clinical decision-making
 - ▣ Clinician attitudes



Why study communication?

To figure out how to make it better



Why do I study communication?

So much fun