JAMA | Special Communication

Practices to Foster Physician Presence and Connection With Patients in the Clinical Encounter

Donna M. Zulman, MD, MS; Marie C. Haverfield, PhD; Jonathan G. Shaw, MD, MS; Cati G. Brown-Johnson, PhD; Rachel Schwartz, PhD; Aaron A. Tierney, BA; Dani L. Zionts, MScPH; Nadia Safaeinili, MPH; Meredith Fischer, MA; Sonoo Thadaney Israni, MBA; Steven M. Asch, MD, MPH; Abraham Verghese, MD

IMPORTANCE Time constraints, technology, and administrative demands of modern medicine often impede the human connection that is central to clinical care, contributing to physician and patient dissatisfaction.

OBJECTIVE To identify evidence and narrative-based practices that promote clinician presence, a state of awareness, focus, and attention with the intent to understand patients.

EVIDENCE REVIEW Preliminary practices were derived through a systematic literature review (from January 1997 to August 2017, with a subsequent bridge search to September 2019) of effective interpersonal interventions; observations of primary care encounters in 3 diverse clinics (n = 27 encounters); and qualitative interviews with physicians (n = 10), patients (n = 27), and nonmedical professionals whose occupations involve intense interpersonal interactions (eg, firefighter, chaplain, social worker; n = 30). After evidence synthesis, promising practices were reviewed in a 3-round modified Delphi process by a panel of 14 researchers, clinicians, patients, caregivers, and health system leaders. Panelists rated each practice using 9-point Likert scales (-4 to +4) that reflected the potential effect on patient and clinician experience and feasibility of implementation; after the third round, panelists selected their "top 5" practices from among those with median ratings of at least +2 for all 3 criteria. Final recommendations incorporate elements from all highly rated practices and emphasize the practices with the greatest number of panelist votes.

FINDINGS The systematic literature review (n = 73 studies) and qualitative research activities yielded 31 preliminary practices. Following evidence synthesis, 13 distinct practices were reviewed by the Delphi panel, 8 of which met criteria for inclusion and were combined into a final set of 5 recommendations: (1) prepare with intention (take a moment to prepare and focus before greeting a patient); (2) listen intently and completely (sit down, lean forward, avoid interruptions); (3) agree on what matters most (find out what the patient cares about and incorporate these priorities into the visit agenda); (4) connect with the patient's story (consider life circumstances that influence the patient's health; acknowledge positive efforts; celebrate successes); and (5) explore emotional cues (notice, name, and validate the patient's health's emotions).

CONCLUSIONS AND RELEVANCE This mixed-methods study identified 5 practices that have the potential to enhance physician presence and meaningful connection with patients in the clinical encounter. Evaluation and validation of the outcomes associated with implementing the 5 practices is needed, along with system-level interventions to create a supportive environment for implementation.

JAMA. 2020;323(1):70-81. doi:10.1001/jama.2019.19003 Corrected on March 17, 2020. Editorial pages 31 and 33

Supplemental content

+ CME Quiz at jamanetwork.com/learning

Author Affiliations: Division of Primary Care and Population Health. Stanford University School of Medicine, Stanford, California (Zulman, Shaw, Brown-Johnson, Tierney, Zionts, Safaeinili, Fischer, Asch); VA Palo Alto Health Care System Center for Innovation to Implementation (Ci2i), Menlo Park, California (Zulman, Haverfield, Schwartz, Tierney, Asch); Stanford University Center for Primary Care and Outcomes Research (PCOR) and Center for Health Research and Policy (CHRP), Stanford, California (Haverfield, Schwartz); Department of Medicine, Stanford University, Stanford, California (Thadaney Israni, Verghese).

Corresponding Author: Donna M. Zulman, MD, MS, Stanford University School of Medicine, Division of Primary Care and Population Health, Medical School Office Building (MSOB), 1265 Welch Rd, MC 5411, Stanford, CA 94305 (dzulman@ stanford.edu). S cientific and technological advances have greatly improved disease treatment and care delivery, but these same advances have contributed to physician and patient dissatisfaction. In attempts to personalize health care, the delivery of care has become more impersonal.¹ A patient's need to connect and a physician's need to find meaning through connection are frustrated by an intrusive electronic health record, brief visits, and administrative demands. This mismatch of time and expectations is associated with physician frustration, emotional exhaustion, and "burnout" rates that affect many clinicians.^{2,3}

The word *presence* refers to a purposeful practice of awareness, focus, and attention with the intent to understand and connect with patients.^{4,5} The interpersonal interactions of clinical care give physicians insight that cannot be garnered from an electronic health record. This gathering of nuanced, personal data (eg, what is important to a patient; how a patient's symptoms affect her or his life, goals, and preferences for treatment) cultivates respect and trust between patients and physicians and can reduce the miscommunication and oversight that leads to medical error.

The objective of this study was to identify evidence-based practices that foster this time-honored ritual between physicians and patients to create connection, particularly in the first moments of a clinical encounter. To ensure that these measures are useful and easily implemented, the study focused on specific actions, behaviors, and communication strategies that clinicians could easily adopt and utilize in a busy clinical practice.

Methods

We derived a preliminary set of presence practices through formative research that included a systematic literature review of effective interpersonal interventions; clinical observations of diverse primary care encounters; and qualitative interviews with primary care physicians, patients, and nonmedical professionals whose occupations involve intense interpersonal interactions (ie, individuals who work with clients or other service recipients under time-pressured or stressful conditions). We then conducted a 3-round modified Delphi process⁶ with experts who represented multiple perspectives on the patient-physician relationship to identify a final set of core practices.

Literature Review

The research team conducted a systematic literature review of the medical and social sciences literature to identify evidence-based interpersonal interventions that could form the basis for presence practices. As previously described,⁷ we searched PubMed, EMBASE, and PsycInfo (January 1997 to August 2017) for randomized controlled trials and controlled observational studies that examined the association between patient-clinician interpersonal interventions and included at least 1 outcome measure of the "quadruple aim" (ie, patient health outcomes, patient experience, clinician experience, or cost).⁸

Using the Covidence (Veritas Health Innovation Ltd) online systematic review tool, 2 trained independent investigators abstracted information about intervention content, structure, and study design quality and methods from each article. A third investigator reviewed abstracted data and resolved discrepancies.

Key Points

Question What are the most promising practices to foster physician presence and connection with patients?

Findings This mixed-methods study identified 5 practices that may enhance physician presence and meaningful connection with patients in the clinical encounter: (1) prepare with intention; (2) listen intently and completely; (3) agree on what matters most; (4) connect with the patient's story; and (5) explore emotional cues.

Meaning For busy clinicians with multiple demands and distractions, 5 recommended practices have the potential to facilitate meaningful interactions with patients.

Abstracted data included intervention focus (ie, motivational interviewing, health literacy, patient-physician relationship, patientcentered care, communication skills, shared decision-making, communication technique, psychological/therapeutic interview, mindfulness), intervention structure (ie, education, practice, instructions, tool), demand on clinician (time and effort requirements), target of intervention (ie, clinician, clinician and patient), and outcome effect size and significance. Study design quality was assessed using the Cochrane criteria for grading randomized controlled trials and the Effective Practice and Organisation of Care for controlled observational studies: the level of evidence was assessed using Oxford Centre for Evidence-Based Medicine criteria. A multidisciplinary team of primary care physicians and researchers with expertise in linguistics, health communication, and public health synthesized findings to identify interpersonal interventions associated with positive outcomes across the quadruple aim. eAppendix 1 in the Supplement includes a full description of study criteria, search terms, and abstraction methods. A bridge search was completed in September 2019 to identify additional articles that met search criteria.

Clinical Observations and Interviews With Physicians and Patients

To supplement literature-based findings about practices that foster physician presence and connection with patients, team members observed and analyzed 27 physician-patient interactions in 3 diverse primary care settings: an academic medical center (n = 10), a Veterans Affairs facility (n = 7), and a federally qualified health center (n = 10). At each site, we used convenience sampling to select 2 to 5 internal medicine or family medicine physicians who (1) were identified by leadership or peers as having exceptional interpersonal skills and (2) represented diversity in terms of clinician gender, years in practice, and race/ethnicity. We used convenience sampling to recruit English- and Spanish-speaking adult patients who had appointments with participating physicians during prespecified observation days. Researchers trained in qualitative methods observed and video- or audio-recorded the clinical encounters. After the encounters, clinicians and patients were interviewed about strategies that clinicians use to establish presence and forge meaningful connections with patients. Data were synthesized using a rapid ethnography approach that incorporated training to build consensus capabilities, multiple observations of several encounters to support reliability and validity, and written and oral debriefs shortly after each observation.⁹ Additional details

jama.com

about observation methods, procedures, and analysis are presented in eAppendix 2 in the Supplement. Observation procedures were approved by the Stanford University institutional review board (IRB 42397). Physicians and patients provided written informed consent for encounter observations and recordings, interviews, and surveys.

Interviews With Nonmedical Professionals

Guided by human-centered design theory, ^{10,11} researchers trained in qualitative methods conducted and analyzed interviews with 30 professionals outside the field of clinical medicine whose jobs involve relational care and intense interpersonal interactions. The objectives of these interviews, described previously,¹² were to learn from analogous experiences and to identify cross-disciplinary practices that foster human connection and might have applications in medicine. Convenience sampling was used to identify 3 to 5 individuals from each of 7 categories of profession¹³: management; business/finance; community and social service; educational instruction; arts, design, entertainment, and media; protective services; and personal care and service occupations. Recruitment continued until we obtained a sample stratified by profession category and achieved data saturation. Interviews were anonymous and coded by professional role; this component of the study received an exemption from the Stanford University institutional review board (IRB 43314). Additional details about the interview methods, procedures, and analysis are presented in eAppendix 3 in the Supplement.

Evidence Synthesis

Through the literature review and complementary qualitative research activities, a list of 31 potential practices was generated that contribute to clinician presence and connections with patients (eAppendix 4 in the Supplement). The research team met weekly and held 2 half-day workshops over a 2-month period to review the evidence for each practice. During this time, the team (1) reviewed the supporting and contradictory evidence from the systematic review and examined the existence, quantity, and strength of evidence across quadruple-aim outcomes for each potential practice; (2) categorized promising practices by emerging domain and compared the strength of the evidence for practices within each domain; (3) identified supplementary literature, including established physician-patient communication interventions, qualitative studies, and research from nonmedical fields such as business, education, and sociology; (4) reviewed findings with clinical and research advisors; (5) combined practices with substantial overlap; and (6) eliminated practices with inadequate evidence or insufficient support from qualitative research or advisors. eAppendix 4 provides additional details about the evidence synthesis process and findings.

Delphi

Following evidence synthesis activities, we used a modified Delphi process—a validated method for quantifying expert opinion⁶—to revise and finalize a list of recommended presence practices. A full description of the Delphi methods is available in eAppendix 5 in the Supplement. The panelists (n = 14; not otherwise affiliated with the project) were chosen to represent diverse sociodemographic groups, disciplines, geographies, and practice settings. Individual

panelists included physicians, health system leaders, patient and caregiver advocates, and researchers with expertise in physician communication and behavior, implementation of physician-patient interpersonal interventions, and medical education. The Delphi panel was facilitated by an experienced nonvoting Delphi moderator and had 3 rounds: (1) a virtual meeting to introduce the preliminary practices; (2) an in-person moderated discussion; and (3) a virtual meeting to present refined practices.

After each round of the Delphi, panelists rated each practice using 3 criteria: (1) potential effect on patient experience (ie, overall satisfaction, clinician communication, and perceived clinician respect and empathy); (2) potential effect on clinician experience (ie, perception that clinical encounters are meaningful, are productive, and contribute to general well-being and job satisfaction); and (3) feasibility of implementation (ie, ease of integration in diverse outpatient clinical settings, considering practice complexity, time demands, and training requirements). Criteria were rated using a 9-point Likert scale (-4 to +4). For each round, the median ratings (with standard deviations) for each criteria were calculated. We determined a priori that we would prioritize practices that received median ratings of at least +2 for all 3 criteria. Between rounds, practices were refined-and in some cases combined-in response to feedback. After the final round, panelists were asked to list their "top 5" practices (the number 5 was selected because it is within the range of easy recall,^{14,15} and implementation and dissemination were explicit goals of this project). The final ratings and practices most frequently listed in the "top 5" were used to generate a final set of 5 practices. Panelists signed an audio/video release and received an honorarium and travel cost reimbursements.

Results

Literature Review

From 21838 references initially identified, 73 studies met inclusion criteria (eAppendix 1 in the Supplement). A majority (92%) of the studies were level 1 according to the Oxford Levels of Evidence, indicating the highest-quality research; 29 (40%) were from the United States and 44 (60%) were international; 67 (92%) were randomized controlled trials and 6 (8%) were controlled observational studies. More than half of the studies (52%) reported at least 1 health outcome, 74% reported at least 1 patient experience outcome, 37% reported at least 1 clinician experience outcome, and 26% reported costs or cost-relevant outcomes. The most common focus areas of the interventions were interpersonal communication skills (29%) and specific communication techniques (22%). Fewer interventions focused on patient-centered care (19%), motivational interviewing (8%), shared decision-making (7%), health literacy (4%), patient-physician relationship (4%), mindfulness (4%), and psychological/therapeutic interviewing (3%). Specific studies that provided support for the final recommended practices are described in eAppendix 6 in the Supplement.

Clinical Observations and Interviews With Physicians and Patients

Observed clinicians represented diversity in gender (5 men and 5 women) and race/ethnicity (50% Asian, 10% Hispanic/Latino,

and 10% African American/black). Observed patients (n = 27) had a mean age of 58 years (SD, 17 years; range, 20-90 years); 16 identified as male, 11 as female; and the majority were nonwhite (30% Hispanic/Latino, 22% Asian, and 15% African American/ black). Nineteen percent reported speaking a second language at home (Hindi, Arabic, Tamil, Ilocano); an additional 26% were exclusively or primarily Spanish speaking. Some examples of practices that were observed or discussed in interviews include checking in and exploring patient concerns (eg, "Does that make sense?"), statements conveying empathy and validation ("I know, man, it's so true"; "Sounds like ..."), indications of partnership (eg, "Let's look at this together"), nonverbal communication (eg, clinician turned swivel chair toward patient while listening to patient's primary concern), and complimenting patient efforts and ideas (eg, "Keep on doing what you're doing!"). Additional findings from the clinical observations and interviews are presented in eAppendix 2 and eAppendix 6 in the Supplement.

Interviews With Nonmedical Professionals

Nonmedical professionals (n = 30) were well balanced in terms of gender (53% male and 47% female) and race/ethnicity (5 Asian, 2 Latino, 2 Middle Eastern, and 1 Pacific Islander). Representation across professional domain and specific roles are presented in eAppendix 3. Cross-professional themes around presence and human connection included trust building ("It comes through the building of relationships and the building of your credibility ... through actions, through words"-school principal), nonverbal communication and silence ("I use a lot of silence ... sometimes I back away physically from people if I see they can't make eye contact with me"-chaplain), adopting mindfulness approaches ("[I remind myself] 'Why are you here? Why did you sign on the dotted line?' ... At the end of the day, it's about the people I'm serving"-fire captain), and connecting on an emotional level ("Usually if I let myself be carried along by someone's story, I find that it pushes them to say more"-documentary filmmaker). Additional findings from these interviews are included in eAppendix 3 in the Supplement.

Evidence Synthesis

Evidence synthesis narrowed the 31 preliminary practices to 18 practices across 5 domains: clinician introspection and mindfulness activities, practices that help a clinician prepare for and personalize a visit, practices that involve nonverbal connection, activities that elicit the patient's perspective, and practices related to partnership. After additional evidence review, this list was narrowed to 13 discrete practices with promising support from the systematic literature review, qualitative research findings, and supplementary review of supporting literature (Figure 1). eAppendix 4 in the Supplement provides additional details about the evidence synthesis process and findings.

Delphi

The 14 Delphi panelists included 8 physicians, 1 patient advocate, 1 caregiver advocate, and 2 health system leaders; research expertise included medical education/bedside medicine (n = 7), health care delivery innovation (n = 7), implementation of clinical interventions (n = 3), health care and clinical communication (n = 9), diversity/health disparities (n = 4), and psychology/behavior change (n = 4). eAppendix 5 in the Supplement provides additional details about the Delphi panel demographics and procedures.

Delphi panel ratings are presented in Table 1; qualitative feedback is presented in eAppendix 5 in the Supplement. In the first round of the Delphi panel, 3 of the 13 preliminary practices received median ratings of 2 or higher (positioning oneself, stopping and listening, asking "What's important to you?"). All practices were revised in response to quantitative ratings and qualitative feedback, and in the second round, 2 additional practices met threshold ratings (collaborative agenda setting and focusing on progress). Prior to the third panel, 2 practices that had received consistently low ratings were eliminated (emphasizing joint responsibility and recognizing the power of touch), and others were incorporated into practices with similar principles (eg, sharing the screen was integrated into positioning oneself). Eight practices were reviewed in the third round, only 5 of which had been significantly altered and were therefore rerated. The practices that received the greatest number of "top 5" votes were honoring emotions (100%), coming prepared (86%), listening without interrupting (86%), and eliciting and addressing patient priorities (79%). Practices with fewer "top 5" votes (taking a moment [43%], positioning oneself [43%], focusing on the positive [36%], and walking in the patient's shoes [29%]) were combined and/or incorporated into the higher-ranking practices. The final practices were renamed based on discussion with Delphi panelists and project advisors.

Five Recommended Practices to Foster Presence and Meaningful Connection With Patients

Study activities yielded 5 recommended practices to foster presence and meaningful connections with patients—the "Presence 5 Practices" (Figure 2). Below, each practice is summarized, along with examples and supporting evidence from the formative research activities and Delphi panel. Illustrative quotes from physicians, nonmedical professionals, and Delphi panelists are presented in Table 2. A detailed description of each practice and supporting evidence is presented in eAppendix 6 in the Supplement.

Prepare With Intention

This practice includes 2 components that comprise physical and psychological preparation for a clinical encounter: (1) personalized preparation for the patient and (2) taking a moment to pause and focus. The first component involves the physician becoming familiar with the person they are about to see, facilitating a more immediate connection with the patient. Although there is limited empirical evidence for physical preparation, in settings that distribute previsit questionnaires, reviewing the patient's responses before an appointment increases patient reports that they received information about their health and medications and increases the number of patient concerns that physicians elicit.¹⁶

Qualitative findings from physician interviews highlighted that some form of preparation is critical to presence, a perspective that echoes expert commentaries.¹⁷ "Precharting" (reviewing a patient's chart before a visit) has been recommended by the American Medical Association¹⁸ and is standard in many settings but typically focuses on reviewing medical conditions and could be enhanced by a brief review of a patient's life circumstances and back story. Experts commented that for clinicians who do not have time to prechart, preparation can take the form of asking a nurse

jama.com

indings from systematic eview, analogous interviews, nd observations (n = 31)	SYNTHESIS	Practices for further research and review (n = 18)	A D D I T I O N A L L I T E R A T U R E	Practices discussed at Delphi pan
		-Ritual and mindfulness	S E A R C H	
Warm-up act		Engage your superpower (eg, mantras, self-efficacy)		Take a moment
Hand on the doorknob		Hand on the doorknob		
Body scan or read your body		or handwashing ritual		
Recognize your superpower		Managing emotions: what are my triggers and what frustrates me?		Prepare for the patient
Customize the visit				
Previsit preparation		Prepare and personalize Set goals walking into the room: what		Position yourself
What's my bias?		would make this visit meaningful?		
Move your body		Precharting to develop an agenda for this patient		
Share the screen		· · · ·		Share the screen
Close eyes during examination		Strengthening "automatic positive attitudes" toward patients		
Walk in the patient's shoes				Stop and listen
Perspective taking		Thoughtful body positioning (eg, sit down, lean in)		/
Patient social history		(eg, sit down, tean in)		
Open-ended questions		Use of expressive touch	$X \setminus / /$	Collaborative agenda setting
Sentinel questions		Chart or monitor sharing (in-the-moment	: X \ \	/
Single-word changes		sharing of tangible information)		"What's important to you?"
Adjust power dynamics		Eye contact		
Elicit questions from patient		—Patient perspective		Walk in the patient's shoes
Establish shared expectations	NN NN '	Active consideration and integration of patient perspectives		watk in the patient's shoes
Focus on solutions	///////////////////////////////////////	Wording of common questions (eg, "is		
Positive reinforcement	/ / / / / / /	there 'something' vs 'anything' else?")		Focus on progress
Relationship		Elicit patient priorities and preferences		
Use silence	/ // // //			Engage in emotion
Slower speech rate	///////////////////////////////////////	Empowerment	K / /	
Self-disclosure) <u> </u>	Partnership process		
Laughter		Sharing expectations (bidirectional)		Recognize the power of touch
Vulnerability				
Humor		Highlight the positive		Emphasize joint responsibilit
Connect with family members		Communicate a partnership ("let's work together")	4	
Explore hidden problems			/	Keen on energy wind
Proactive scheduling		Pause and listen		Keep an open mind
PRACTICE DOMAINS				

Patient perspective

Clinician actions to build empathy in order to understand the patient's perspective and priorities

focus the visit time on their agenda and connect with patients

Partnership process Strategies to establish and maintain a partnership with the patient communication that facilitate clinician presence, perception of quality time, and connection with the patient

or medical assistant to report any important patient-reported information obtained while rooming a patient or performing a 1-minute chart review of critical social-not just medical-history before the visit. Experts also indicated that implementation might be a challenge in settings with minimal time between visits but could be

supported through clinic protocols that elicit updates and priorities from patients before their visits.

The second component of preparation involves a moment before or at the beginning of the visit during which a physician clears her or his mind of distractions and sets the intention for the

74 JAMA January 7, 2020 Volume 323, Number 1

© 2020 American Medical Association. All rights reserved.

	First Rating	Ď		Second Rating	ting			Third Rating ^b	g ^b			
Preliminary Practices	Patient	Clinician	Implementation Feasibility	Patient	Clinician	Implementation Feasibility	- Revised Practices	Patient	Clinician	Implementation Feasibility	— Тор 5, % ^с	Final Practices
Prepare for the person	2.5	2.0	0.0	3.0	2.5	-0.5	Come prepared	3.0	3.0	2.0	86	Prepare with intention
Take a moment	1.5	2.0	3.0	1.5	2.0	2.5	Take a moment	2.5	2.5	3.0	43	
Position yourself	3.0	2.0	3.0	4.0	2.5	2.5	Position yourself	Not rated	Not rated	Not rated	43	Listen intently and
Stop and listen	4.0	3.0	2.0	4.0	2.5	2.0	Listen without interrupting	Not rated	Not rated	Not rated	86	completely
Share the screen	2.0	1.0	-1.0	2.0	2.0	1.0	Combined with "position yourself"					
Collaborative agenda setting	2.5	2.0	1.5	3.0	3.0	2.0	Elicit and address patient priorities	4.0	3.0	2.0	79	Agree on what matters most
Ask "What's important to you?"	4.0	2.5	2.5	4.0	2.0	2.0	Combined with "elicit and address patient priorities"					
Emphasize joint responsibility	1.5	1.5	0.5	1.5	1.5	0.0	Eliminated					
Walk in the patient's shoes	3.0	2.0	1.0	3.5	2.5	1.0	Walk in the patient's shoes	2.0	2.0	2.0	29	Connect with the patient's story
Keep an open mind	2.0	1.0	-2.0	2.0	2.0	-2.0	Combined with "walk in the patient's shoes"					
Focus on progress	3.0	3.0	1.5	3.0	3.0	2.5	Focus on the positive	Not rated	Not rated Not rated	Not rated	36	
Engage in emotion	3.0	2.5	1.0	4.0	3.0	1.5	Honor emotions	4.0	3.5	2.0	100	Explore emotional cues
Recognize the power of touch	1.0	1.0	1.0	1.0	0.5	-1.5	Eliminated					
Ratings are median potential effect on feasibility.	ı panelist ral patient exp.	ings for each pr erience, the pot	^a Ratings are median panelist ratings for each practice using 9-point Likert scales (-4 to +4) that reflect th potential effect on patient experience, the potential effect on clinician experience, and implementation feasibility.		les (-4 to +4) that reflect the ience, and implementation	٩	This column shows the p the Delphi panel.	ercentage of	experts (n = 1	14) who rated the pract	tice in the "to	$^{\circ}$ This column shows the percentage of experts (n = 14) who rated the practice in the "top 5" at the conclusion of the Delphi panel.

Downloaded From: https://jamanetwork.com/ Hubnet by Edward Stehlik on 11/28/2020

Figure 2. Recommended Clinician Practices to Foster Connection With Patients

Prepare with intention.

5

Familiarize yourself with the patient you are about to meet.
Create a ritual to focus your attention before a visit.

Are you prepared for a meaningful interaction?

Listen intently and completely.

- Sit down, lean forward, and position yourself to listen.
- Don't interrupt. Your patient is your most valuable source of information.

What does your patient say when uninterrupted?

Agree on what matters most.

Find out what your patient cares about and incorporate these priorities into the visit agenda.

What are your patient's health goals, now and in the future?

Connect with the patient's story.

- Consider the circumstances that influence your patient's health.
- Acknowledge your patient's efforts, celebrate successes.

How can you contribute positively to your patient's journey?

Explore emotional cues.

Tune in. Notice, name, and validate your patient's emotions to become a trusted partner.

What can you learn from your patient's emotions?

upcoming encounter. While this is not traditionally part of the medical curriculum, some physicians reported finding value in making an explicit effort to pause. Specific practices anchored to routine tasks, such as handwashing (which in some religious rituals is a moment of centering),¹⁹ might remind physicians that they are entering hallowed space, allowing them to be intentional; some might instead take 3 deep breaths before walking into the examination room.²⁰⁻²² These practices have been studied most frequently in the context of mindfulness-based stress reduction and physician wellness. A recent systematic review of 81 articles found that mindfulness interventions were associated with improvements in clinicians' anxiety, depression, and stress.²³ Brief breathing and mindfulness exercises have also been incorporated into more complex interventions that improve physician well-being and experiences with difficult visits.^{20,22} Although a mindfulness-oriented practice might not appeal to all clinicians, experts generally agreed that it requires minimal training, is easy to implement in varied and busy clinical settings, and can be tailored per personal preference.

Listen Intently and Completely

This practice also incorporates 2 components: (1) listening with one's whole body using open and receptive body language and (2) avoiding interruptions. The first component involves

nonverbal behaviors that convey openness and facilitate listening; eg, sitting down, 24-28 leaning in, 29,30 maintaining an open body position, ^{26,27,29-31} and orienting one's body toward the patient.³²⁻³⁵ Thoughtful physician body positioning has been shown to support relationship building, trust, and patient satisfaction with treatment.³⁶ Sitting down has perhaps the greatest empirical evidence, with multiple randomized trials demonstrating that sitting increases patient estimates of visit length^{24,25} and their perception that their physician is listening.²⁸ Physician posture that conveys openness and respect (vs positions that make oneself seem larger and more dominant) can also positively influence patient reports of physician behavior²⁶ and is modifiable through communication trainings.²⁷ This practice was noted to be important when using an electronic health record, as sharing the computer screen and orienting the body toward the patient even when typing has a positive influence on physician-patient communication, information transfer, trust, and patient satisfaction.³²⁻³⁵ Preferences for nonverbal behaviors such as eye contact can differ depending on race, nationality, and cultural identity, but open body position correlates with higher patient ratings of physician warmth and overall care across physician and patient backgrounds.³⁷ Experts noted that for some clinicians, implementation may require formal training in nonverbal communication skills, but others may be able to adapt their behaviors with minimal intervention.

The second key component of this practice is to avoid interrupting a patient, particularly during the patient's opening description of active health issues.³⁸⁻⁴⁰ Research has shown that, on average, physicians interrupt their patients within 11 seconds.⁴¹ When physicians listen attentively and avoid interruptions during opening monologues, patients communicate more, provide more medical information, and report greater satisfaction.^{42,43} The practice can be extended throughout the visit by using silence and "infrequent, timely, and considered questions" when the patient is telling his or her story.44 When incorporated into complex communication interventions, listening without interruption can reduce patient pain and anxiety³⁹ and does not substantially extend visit time.^{38,40,43} Using silence can also reduce the incidence of "doorknob syndrome," ie, when a patient raises new concerns at the very end of the visit.⁴⁵ In terms of implementation, this practice requires minimal training or intervention; for example, one study changed clinician behavior by handing physicians a note before a patient visit that reminded them not to interrupt the patient.⁴⁰ Experts also noted that physicians should be attuned to cultural preferences and language barriers that may influence a patient's comfort with uninterrupted speech.

Agree on What Matters Most

This practice focuses on learning about what is most important to a patient and developing shared priorities for a visit.⁴⁶ Understanding what matters to a patient is at the core of patientcentered, humanistic care, and when achieved early in the visit, helps set the stage for meaningful encounters.⁴⁷ Evidence suggests that collaborative agenda setting reduces last-minute new concerns, improves patient satisfaction ratings, and positively influences symptoms such as pain and anxiety.^{39,43,48} A simple form of this practice involves beginning the visit with an openended question asking the patient to describe in their own words why they are in the clinic: "What brings you here?" or "What is

Practice	Physicians	Nonphysicians	Expert Panelists
Prepare with intention	"When I wash my hands, I think about, 'Let me help this person be as healthy as possible.'"	"[I have] a few minutes at least before each interview where I'm not talking to anybody, and justsort of prepare yourself. Like clear yourself, clear your heart and your mind and be ready for things to come in and out" (filmmaker).	"[Writing something personal about the patient in the notes] is more about building a relationship than anything medical. It makes the patient feel good that you know them" (physician/researcher).
Listen intently and completely	"I've learned to just sit and listen and be present when patients share their storyjust giving them the space to talk and overcoming the urge to interrupt or direct the conversation."	"Sometimes I back away physically from people if I see they can't make eye contact with me. That gives them a sense of reassurance that I'm not there to invade them; I really am there to listen deeply and allow them their experience" (chaplain).	"Nonverbal behavior doesn't take place outside of verbal behavior. Tone of voice is important. Timing is important. Walk into the room, sit down, face the patient, and then greet the patient. Don't address the door" (researcher).
Agree on what matters most	"I start from day one with a new patient [with] 'Whatever you have, tell me about it.' And most of the time, they'll tell me everything that I was going to ask. And then I'll say, 'Okay, what do you want to do next?' And I just start from there. I don't start from scratch."	"We put together a statement of work. Once we agree on this program, it'sa recipe we follow. We have an agendaIt's all about setting expectations and shared decision-making" (design researcher).	"At first, [agenda setting] seems so obvious, making sure you're using your time and you're getting to everything, but you need to have buy-in. Making agenda setting collaborative is the important part of this practice" (physician).
Connect with the patient's story	"I really support them in the right things they're doing—which often people don't recognize—and really try to help them help themselves. Finger wagging doesn't really help."	"On the first day of school I always [ask students to] write me a letter of something you want me to know about you. And some students say things like, 'I have 4 brothers and sisters, which means my house is really crowded,' and some students will write, 'I have dyslexia so please don't call on me in lesson.'" (high school teacher).	"If we aren't thinking about the context of a patient's life, we're missing a key piece. This is central to combating prejudice because it helps people understand people as human beings" (physician/researcher).
Explore emotional cues	"Usually if they're very ill they're (1) scared, but (2) they're more focused on their own bodily feelings. What they want from me is reassurance that things are going to be okay. They don't necessarily need me to make a big connection with them."	"A lot of times you can see the stress leave a person when they start to tell you something that you know is going on" (Environmental Protection Agency enforcement agent).	"One of the biggest threats to physician-patient engagement is that we no longer look at our patients' faces. This is something we can do something about; our faces are a road map of emotion" (physician/researcher).

Table 2. Examples of Quotes From Qualitative Interviews With Physicians and Nonphysicians and Discussion With Expert Panelists

your main question or concern for today?"⁴⁹⁻⁵² The clinician should then incorporate the patient's priorities into the visit agenda (eg, "I want to make sure we are on the same page about what you want to cover today").^{39,43,48,53}

Toward the end of the visit, asking "Is there *something* else you want to address in the visit today?" (rather than asking "Is there *any-thing* else ...") can also reduce the number of unmet concerns and does not meaningfully increase visit length.⁵⁴ Eliciting patient concerns can increase the amount of condition-related information that physicians receive^{50-52,54-57} and improve patients' perceptions of a physician.⁴⁹ Implementation of this practice may vary by context; for example, in clinics that conduct previsit questionnaires, a patient's responses can form the basis for a discussion about visit priorities.⁵⁸ While collaborative agenda setting training can be lengthy,^{39,48,58} adopting some of the core principles described above requires minimal time and training.

Connect With the Patient's Story

This practice comprises 2 components: (1) consider the personal circumstances that influence a patient's health and (2) focus on the positive, acknowledging a patient's efforts and celebrating successes. The first component involves being curious and forging a connection by asking a patient about his or her sociocultural background and life circumstances.^{59,60} Research demonstrates that when medical students are instructed to "look at the world through the patient's eyes and walk through the world in the patient's shoes," they receive higher satisfaction ratings from standardized patients.⁶¹ When physicians show active consideration of a patient's perspective, it demonstrates that they want to understand the patient, and it creates an atmosphere of shared presence⁴⁷ and may directly in-

fluence quality of care: one randomized controlled trial of general practitioners in the United Kingdom showed that considering the psychological, social, family, and cultural reasons for why a high-utilizing patient is in the clinic can reduce the number of consultations.⁶² Other studies have illustrated that this practice can also reduce racial biases.^{63,64} Research from psychology and medical education suggests that there may be benefits to moving beyond this perspective-taking to perspective-getting, where clinicians acquire personal knowledge about patients through questions ("Tell me about your tattoo" or "What brings you joy?") instead of making assumptions based on race, ethnicity, gender, socioeconomic status, or past encounters.^{59,60,65-67}

The second component of the practice involves acknowledging specific patient efforts in a genuine and positive manner. Examples include using positive language such as statements of approval, empathy, reassurance, and partnership; offering genuine praise for patient efforts; and acknowledging small successes when appropriate.^{68,69} A physician's positivity has been associated with positive patient health outcomes,⁷⁰ a finding that parallels the evidence for positive coaching in athletes.^{71,72} Evidence suggests that acknowledging patient efforts and progress through affirmation statements encourages adherence to treatment and behavior change⁶⁹ and encourages patients to participate in their care.⁷³ In one study, physicians who used encouraging statements when discussing a diabetes diagnosis had better patient-perceived communication, which was significantly associated with patient well-being, less diabetes-related emotional burden, less regimen-related distress, and better self-care.⁷⁴ When physicians received interpersonal communication skills training to increase positive talk (approval) and empathy (reassurance) and

jama.com

decrease negative talk, patient-physician communication scores increased, and patients reported decreased distress and greater satisfaction with the medical encounter.^{42,68,75} While rigorous evaluations of this practice examined in-depth training for multiple communication behaviors,^{42,68,75} expert panelists thought that the use of positive framing and language could be adopted with minimal time and resource investment, and that this practice could contribute to the joy of practice.

Explore Emotional Cues

The fifth practice focuses on exploring emotion through (1) reading a patient's verbal and nonverbal emotional cues (eg, changes in the patient's tone of voice, facial expressions, and body language)²⁶; (2) eliciting patient emotions through questions (eg, "How are you doing?" or "How are you feeling about this?")^{76,77}; and (3) reflecting and validating perceptions of a patient's emotions (eg, "That sounds very difficult" or "I can see that this is affecting you deeply").⁷⁷⁻⁷⁹ A large body of evidence suggests that clinician interpersonal sensitivity, including the ability to perceive patient emotions, is associated with positive patient outcomes, including patient satisfaction, appointment adherence, and learning of conveyed information.^{80,81} While individuals' emotional sensitivity may vary widely, research shows that patients appreciate physician attempts to elicit and identify their emotional cues, even when the clinician is mistaken.⁸²

Systematic reviews and meta-analyses that have examined the effectiveness of training clinicians to accurately perceive patient emotions demonstrate that brief training, including in a self-administered format,⁸³ can improve skills in decoding nonverbal emotional cues.^{26,79,84} There is also evidence that when clinicians actively attend to patients' emotional concerns, and reflect this through their own emotional expression, patients experienced shorter and less severe illness.⁷⁸ From an implementation perspective, adopting this practice may require a greater resource investment than others, and engaging in emotion may at times increase visit length⁷⁸; however, evidence suggests that effective engagement with patient emotion can actually decrease visit length while increasing patient satisfaction,⁸⁵ and the association between emotional awareness and clinical outcomes⁷⁸ may justify additional visit time.

Discussion

Human connection remains central to medicine but is in jeopardy in the current health care environment. In an era of increasing reliance on technology for health records, diagnosis, and treatment, recognizing and prioritizing the value of human connection and care are crucial. We identified practices grounded in scientific evidence that have the potential to foster physician presence and improve the experience of clinicians and patients.

This report describes an application of human-centered design principles, combined with a modified Delphi process, to identify promising practices related to humanistic care of the patient. Traditionally, Delphi panels have been used to define quality indicators and establish clinical guidelines,^{86,87} often around a specific disease or set of conditions, and typically with the benefit of randomized trials and meta-analyses. In this study,

however, the focus was on interpersonal interactions with broad relevance to all patient-clinician encounters, and the quantity and quality of evidence for specific practices was heterogeneous. We therefore relied on triangulation among published literature, qualitative interviews with physicians, patients, and nonmedical professionals (whose perspective and wisdom are not traditionally integrated into medical practice), and expert feedback. Our methods and the resulting findings demonstrate a novel approach to Delphi panels that expands the inputs beyond the traditional quantitative data of clinical trials and meta-analyses to include qualitative and human-centered design inputs.

This process ultimately identified 5 distinct evidence and narrative-based practices to be promising with regard to improving clinician and patient experience. The practices incorporate many principles that are intuitively modeled by clinicians such as Peabody and Osler⁸⁸ and that have been the focus of foundational training programs for clinicians, such as the 4 Habits Model and the Humanism Pocket Tool^{89,90} (other exemplary resources are included in eAppendix 6 in the Supplement). Through our mixed-methods approach, we elucidated specific clinician behaviors, questions and statements, and actions that may serve as steps to implementing each practice in the clinical setting.

It is likely that each of the practices presented could be adopted with minimal training and effort. For some of the more complex practices, such as exploring emotional cues, an intensive workshop may provide a richer and more effective skill set. However, even in these cases, there are simple, concrete actions (eg, tuning into facial expressions, asking how the patient is feeling) that can benefit the patient. While adopting any particular practice individually may have a limited influence, collectively they address many of the domains that are central to effective patient-centered care and partnership. The advantage of these simple and tangible practices is that they are relatively easy to adopt and disseminate which could result in a greater population-level effect over time.

Importantly, our findings do not fully address the broader pressures that threaten physician presence. Physician-focused interventions cannot alone be the bulwark against various threats to human connection in patient-physician encounters. As technological, business, and regulatory priorities all increasingly place pressure on the clinical encounter, often without additional allotted time, there is ever more need for cultural and structural changes within organizations to prioritize meaningful interactions.

Limitations

This study has several limitations. First, given the breadth of the systematic literature review, our process might not have captured all relevant literature for certain practices, and the strength of evidence varied across practices (eAppendix 6 in the Supplement). A bridge search (August 2017-September 2019) revealed 16 additional published studies of interpersonal interventions. As before, most interventions focused on communications skills (38%), shared decision-making (25%), or fostering the patient-physician relationship (13%). The additional articles reinforced the original literature review's finding that the strongest evidence for interpersonal interventions relates to their potential effect on patient experience (10 articles) and clinician experience (7 articles); only 1 study examined the effect on health outcomes (eAppendix 1 in the Supplement). Second, while international literature was

well-represented and the qualitative research efforts were attentive to diversity, convenience sampling was used for the qualitative formative research, and as such, primary care observation sites were limited to Northern California.

Third, expert panelists were all from the United States. Given that the patient-physician relationship is contextualized by local culture and norms, findings from this work should be validated through international comparative studies and with experts from other countries. Fourth, the recommended 5 practices have not been validated as a group to determine whether collectively they will achieve the intended outcomes. Additional research is needed to evaluate whether an intervention that incorporates the 5 practices will indeed increase physician presence and connection with patients and improve patient and clinician experience and clinical outcomes.

Conclusions

This mixed-methods study identified 5 practices that have the potential to enhance physician presence and meaningful connection with patients in the clinical encounter. Evaluation and validation of the outcomes associated with implementing the 5 practices is needed, along with system-level interventions to create a supportive environment for implementation.

ARTICLE INFORMATION

Accepted for Publication: November 5, 2019. Correction: This article was corrected on March 17, 2020, for typographical errors.

Author Contributions: Dr Zulman had full access to all of the data in the study and takes responsibility for the integrity of the data and the accuracy of the data analysis.

Concept and design: Zulman, Haverfield, Shaw, Brown-Johnson, Schwartz, Tierney, Zionts, Safaeinili, Thadaney Israni, Asch, Verghese. Acquisition, analysis, or interpretation of data: Zulman, Haverfield, Shaw, Brown-Johnson, Schwartz, Tierney, Zionts, Safaeinili, Fischer, Asch. Drafting of the manuscript: Zulman, Haverfield, Schwartz, Fischer, Verghese.

Critical revision of the manuscript for important intellectual content: All authors. Statistical analysis: Zulman, Tierney, Zionts.

Obtained funding: Zulman, Thadaney Israni, Verghese.

Administrative, technical, or material support: Zulman, Haverfield, Shaw, Brown-Johnson, Tierney, Zionts, Safaeinili, Fischer, Asch, Verghese. *Supervision:* Zulman, Brown-Johnson, Safaeinili, Asch, Verghese.

Conflict of Interest Disclosures: Ms Thadaney Israni reported serving on the boards of Scients.org and the Society of Bedside Medicine; both roles are unpaid. Dr Verghese reported receiving royalties from Knopf, Harper Collins, and Simon and Schuster and honoraria from the Leigh speaker's bureau and serving on the health policy advisory board for Gilead. No other disclosures were reported.

Funding/Support: This study was supported by grant 6382 from the Gordon & Betty Moore Foundation (to Drs Zulman and Verghese, principal investigators) and by a VA Office of Academic Affairs Advanced Fellowship (to Drs Haverfield and Schwartz).

Role of the Funder/Sponsor: The sponsors had no role in the design and conduct of the study; collection, management, analysis, and interpretation of the data; preparation, review, or approval of the manuscript; or decision to submit the manuscript for publication.

Additional Contributions: We appreciate the valuable contributions of the experts who participated in the Delphi panel: William Branch Jr, MD (Emory University School of Medicine), Arleen Brown, MD, PhD (University of California, Los Angeles), Calvin Chou, MD, PhD (University of California, San Francisco), Richard M. Frankel, PhD (Indiana University School of Medicine), Judith A.

Hall, PhD (Northeastern University), Manny Hernandez, MEng (American Diabetes Association), Rumana Hussain, MBA, MPH (Alameda Health System), Lucy Kalanithi, MD (Stanford University School of Medicine). Eliseo J. Pérez-Stable. MD (National Institutes of Health), Bill Polonsky, PhD, CDE (University of California, San Diego), Helen Riess, MD (Harvard Medical School), David Sobel, MD, MPH (Stanford University School of Medicine), Ian Tong, MD (Doctor on Demand), and Elaine Wittenberg, PhD (California State University, Los Angeles). All panelists received \$500 honoraria and travel cost reimbursements. Ally Hinson (Stanford University), Muzzammil Muhammad Shittu, MS (Stanford University School of Medicine), Derek Chen (Stanford University), and Shreyas Bharadwai, MS (Stanford University School of Medicine) contributed to evidence synthesis and development of the expert panel booklet and received compensation through the study grant. Other research assistants who contributed to the literature review and received compensation through the study grant included Isabella Romero (Palo Alto University) and Gabriella Piccininni and Theodore Miclau, MS (Stanford University School of Medicine). Michelle Bass, PhD, MSI contributed to the systematic literature review in her role as research librarian for Stanford University School of Medicine, Lane Medical Library. Megan Mahoney, MD (Stanford University School of Medicine), Marcie Levine, MD (Stanford University School of Medicine), Lars Osterberg, MD, MPH (Stanford University School of Medicine; VA Palo Alto Health Care System), Christophe Gimmler, MD, LMFT (Stanford University School of Medicine; VA Palo Alto Health Care System) , and Jaime Chavarria, MD (Ravenswood Family Health Center) served as clinical advisors and liaisons to partner sites during formative research and did not receive compensation for their roles. Chaplain Bruce Feldstein, MD, BCC (Stanford University School of Medicine), Alan Glaseroff, MD (Stanford University School of Medicine), John Kugler, MD (Stanford University School of Medicine), Sheila Lahijani, MD (Stanford University School of Medicine), Karl Lorenz, MD, MSHS (Stanford University School of Medicine, VA Palo Alto Health Care System), Amrapali Maitra, MD. PhD (Brigham and Women's Hospital, Harvard Medical School), Kelley Skeff, MD, PhD (Stanford University School of Medicine), and Andrew Elder, MD (University of Edinburgh), provided additional clinical and content expertise during the development of the preliminary presence practices and did not receive compensation for their roles. Additional research contributors who received compensation through the study grant include Marcy Winget, PhD, MHS (director, Evaluation Sciences

Unit, Stanford University School of Medicine), Farzad Azimpour, MD (Stanford University School of Medicine), Lucie Richter, MA, and Svava Atladóttir, MS (Future Medical Systems; Human-Centered Design Consultants), Laura Jacobson, MPH (OHSU-PSU School of Public Health; research consultant),

and Jaime Dice, PhD, MSc (Dice Writing LLC; ethnography consultant). We greatly appreciate the contributions of study participants, including physicians and patients from Stanford Primary Care and Family Medicine Clinics, VA Palo Alto General Medicine Clinic, and Ravenswood Family Health Center.

REFERENCES

1. Verghese A. Culture shock—patient as icon, icon as patient. *N Engl J Med*. 2008;359(26):2748-2751. doi:10.1056/NEJMp0807461

2. Rotenstein LS, Torre M, Ramos MA, et al. Prevalence of burnout among physicians: a systematic review. *JAMA*. 2018;320(11):1131-1150. doi:10.1001/jama.2018.12777

3. Del Carmen MG, Herman J, Rao S, et al. Trends and factors associated with physician burnout at a multispecialty academic faculty practice organization. JAMA Netw Open. 2019;2(3):e190554. doi:10.1001/jamanetworkopen.2019.0554

4. Verghese A. The importance of being. *Health Aff* (*Millwood*). 2016;35(10):1924-1927. doi:10.1377/ hlthaff.2016.0837

 Brown-Johnson C, Schwartz R, Maitra A, et al. What is clinician presence? a qualitative interview study comparing physician and non-physician insights about practices of human connection. *BMJ Open.* 2019;9(11):e030831. doi:10.1136/bmjopen-2019-030831

6. Brook R. The RAND/UCLA appropriateness method. In: McCormick KAMS, Siegel RA, eds. *Clinical Practice Guideline Development: Methodology Perspectives*. Rockville, MD: Agency for Health Care Policy and Research; 1994:59-70.

7. Haverfield MC, Tierney A, Schwartz R, et al. Can patient-provider interpersonal interactions achieve the quadruple aim of healthcare? a systematic review [pulbished online January 9, 2020]. *J Gen Intern Med.* doi:10.1007/s11606-019-05525-2

8. Bodenheimer T, Sinsky C. From triple to quadruple aim: care of the patient requires care of the provider. *Ann Fam Med.* 2014;12(6):573-576. doi:10.1370/afm.1713

9. Handwerker WP. *Quick Ethnography: A Guide to Rapid Multi-Method Research*. Lanham, MD: AltaMira Press; 2001.

10. IDEO. *The Field Guide to Human-Centered Design: Design Kit.* https://www.designkit.org// resources/1. Accessed December 3, 2019.

11. Roberts JP, Fisher TR, Trowbridge MJ, Bent C. A design thinking framework for healthcare management and innovation. *Healthc (Amst)*. 2016; 4(1):11-14. doi:10.1016/j.hjdsi.2015.12.002

12. Schwartz R, Haverfield MC, Brown-Johnson C, et al. Transdisciplinary strategies for physician wellness: qualitative insights from diverse fields. *J Gen Intern Med*. 2019;34(7):1251-1257. doi:10. 1007/s11606-019-04913-y

13. Office of Management and Budget, Executive Office of the President. *Standard Occupational Classification Manual*. https://www.bls.gov/soc/ 2018/soc_2018_manual.pdf. Published 2018. Accessed December 17, 2018.

14. Cowan N. The magical number 4 in short-term memory: a reconsideration of mental storage capacity. *Behav Brain Sci.* 2001;24(1):87-114. doi:10. 1017/S0140525X01003922

 Miller GA. The magical number seven plus or minus two: some limits on our capacity for processing information. *Psychol Rev.* 1956;63(2):81-97. doi:10.1037/h0043158

16. Joos SK, Hickam DH, Gordon GH, Baker LH. Effects of a physician communication intervention on patient care outcomes. *J Gen Intern Med*. 1996;11 (3):147-155. doi:10.1007/BF02600266

17. Sinsky CA. Improving office practice: working smarter, not harder. *Fam Pract Manag.* 2006;13 (10):28-34.

18. Sinsky CA. Pre-visit planning: save time and improve care. October 23, 2014. AMA Ed Hub website. https://stepsforward.org/modules/pre-visit-planning. Accessed December 3, 2019.

19. Feldstein CB. Bridging with the sacred: reflections of an MD chaplain. *J Pain Symptom Manage*. 2011;42(1):155-161. doi:10.1016/j. jpainsymman.2011.03.014

20. Edgoose JY, Regner CJ, Zakletskaia LI. BREATHE OUT: a randomized controlled trial of a structured intervention to improve clinician satisfaction with "difficult" visits. *J Am Board Fam Med.* 2015;28(1):13-20. doi:10.3122/jabfm.2015.01. 130323

21. Gauthier T, Meyer RM, Grefe D, Gold JI. An on-the-job mindfulness-based intervention for pediatric ICU nurses: a pilot. *J Pediatr Nurs*. 2015;30 (2):402-409. doi:10.1016/j.pedn.2014.10.005

22. Krasner MS, Epstein RM, Beckman H, et al. Association of an educational program in mindful communication with burnout, empathy, and attitudes among primary care physicians. *JAMA*. 2009;302(12):1284-1293. doi:10.1001/jama.2009. 1384

23. Lomas T, Medina JC, Ivtzan I, Rupprecht S, Eiroa-Orosa FJ. A systematic review of the impact of mindfulness on the well-being of healthcare professionals. *J Clin Psychol*. 2018;74(3):319-355. doi:10.1002/jclp.22515

24. Johnson RL, Sadosty AT, Weaver AL, Goyal DG. To sit or not to sit? *Ann Emerg Med*. 2008;51(2): 188-193. doi:10.1016/j.annemergmed.2007.04.024

25. Swayden KJ, Anderson KK, Connelly LM, Moran JS, McMahon JK, Arnold PM. Effect of sitting vs. standing on perception of provider time at bedside:

a pilot study. *Patient Educ Couns*. 2012;86(2):166-171. doi:10.1016/j.pec.2011.05.024

26. Riess H, Kelley JM, Bailey RW, Dunn EJ, Phillips M. Empathy training for resident physicians: a randomized controlled trial of a neuroscience-informed curriculum. *J Gen Intern Med.* 2012;27(10):1280-1286. doi:10.1007/s11606-012-2063-z

27. Riess H, Kraft-Todd G. E.M.P.A.T.H.Y.: a tool to enhance nonverbal communication between clinicians and their patients. *Acad Med*. 2014;89(8): 1108-1112. doi:10.1097/ACM.00000000000287

28. Merel SE, McKinney CM, Ufkes P, Kwan AC, White AA. Sitting at patients' bedsides may improve patients' perceptions of physician communication skills. *J Hosp Med*. 2016;11(12):865-868. doi:10. 1002/jhm.2634

29. Beck RS, Daughtridge R, Sloane PD. Physician-patient communication in the primary care office: a systematic review. *J Am Board Fam Pract.* 2002;15(1):25-38.

30. Little P, White P, Kelly J, Everitt H, Mercer S. Randomised controlled trial of a brief intervention targeting predominantly non-verbal communication in general practice consultations. *Br J Gen Pract*. 2015;65(635):e351-e356. doi:10. 3399/bjgp15X685237

31. Bensing JM, Kerssens JJ, Vanderpasch M. Patient-directed gaze as a tool for discovering and handling psychosocial problems in general-practice. *J Nonverbal Behav*. 1995;19(4):223-242. doi:10. 1007/BF02173082

32. Alkureishi MA, Lee WW, Lyons M, et al. Impact of electronic medical record use on the patient-doctor relationship and communication: a systematic review. *J Gen Intern Med*. 2016;31(5): 548-560. doi:10.1007/s11606-015-3582-1

33. Crampton NH, Reis S, Shachak A. Computers in the clinical encounter: a scoping review and thematic analysis. *J Am Med Inform Assoc*. 2016;23 (3):654-665. doi:10.1093/jamia/ocv178

34. Patel MR, Vichich J, Lang I, Lin J, Zheng K. Developing an evidence base of best practices for integrating computerized systems into the exam room: a systematic review. *J Am Med Inform Assoc*. 2017;24(e1):e207-e215.

35. Duke P, Frankel RM, Reis S. How to integrate the electronic health record and patient-centered communication into the medical visit: a skills-based approach. *Teach Learn Med.* 2013;25(4):358-365. doi:10.1080/10401334.2013.827981

36. Martin L, DiMatteo M. Clinical interactions. In: Hall J, Knapp M, eds. *Nonverbal Communication*. Boston, MA: De Gruyter Mouton; 2013:833-858. doi: 10.1515/9783110238150.833

37. Lorié Á, Reinero DA, Phillips M, Zhang L, Riess H. Culture and nonverbal expressions of empathy in clinical settings: a systematic review. *Patient Educ Couns*. 2017;100(3):411-424. doi:10. 1016/j.pec.2016.09.018

38. Langewitz W, Denz M, Keller A, Kiss A, Rüttimann S, Wössmer B. Spontaneous talking time at start of consultation in outpatient clinic: cohort study. *BMJ*. 2002;325(7366):682-683. doi:10.1136/ bmj.325.7366.682

39. Alamo MM, Moral RR, Pérula de Torres LA. Evaluation of a patient-centred approach in generalized musculoskeletal chronic pain/fibromyalgia patients in primary care. *Patient*

Educ Couns. 2002;48(1):23-31. doi:10.1016/S0738-3991(02)00095-2

40. Rabinowitz I, Luzzati R, Tamir A, Reis S. Length of patient's monologue, rate of completion, and relation to other components of the clinical encounter: observational intervention study in primary care. *BMJ*. 2004;328(7438):501-502. doi: 10.1136/bmj.328.7438.501

41. Singh Ospina N, Phillips KA, Rodriguez-Gutierrez R, et al. Eliciting the patient's agenda—secondary analysis of recorded clinical encounters. *J Gen Intern Med*. 2019;34(1):36-40. doi:10.1007/s11606-018-4540-5

42. Brown LD, de Negri B, Hernandez O, Dominguez L, Sanchack JH, Roter D. An evaluation of the impact of training Honduran health care providers in interpersonal communication. *Int J Qual Health Care*. 2000;12(6):495-501. doi:10. 1093/intqhc/12.6.495

43. Tallman K, Janisse T, Frankel RM, Sung SH, Krupat E, Hsu JT. Communication practices of physicians with high patient-satisfaction ratings. *Perm J.* 2007;11(1):19-29. doi:10.7812/TPP/06-106

44. Robertson K. Active listening: more than just paying attention. *Aust Fam Physician*. 2005;34(12): 1053-1055.

45. Gulbrandsen P, Krupat E, Benth JS, et al. "Four Habits" goes abroad: report from a pilot study in Norway. *Patient Educ Couns*. 2008;72(3):388-393. doi:10.1016/j.pec.2008.05.012

46. Gobat N, Kinnersley P, Gregory JW, Robling M. What is agenda setting in the clinical encounter? consensus from literature review and expert consultation. *Patient Educ Couns*. 2015;98(7):822-829. doi:10.1016/j.pec.2015.03.024

47. Ventres WB, Frankel RM. Shared presence in physician-patient communication: a graphic representation. *Fam Syst Health*. 2015;33(3):270-279. doi:10.1037/fsh0000123

48. Brock DM, Mauksch LB, Witteborn S, Hummel J, Nagasawa P, Robins LS. Effectiveness of intensive physician training in upfront agenda setting. *J Gen Intern Med*. 2011;26(11):1317-1323. doi:10.1007/s11606-011-1773-y

49. Robinson JD, Heritage J. Physicians' opening questions and patients' satisfaction. *Patient Educ Couns*. 2006;60(3):279-285. doi:10.1016/j.pec.2005. 11.009

50. Riegels NS, Asher E, Cartwright JR, et al. Listening beyond auscultating: a quality initiative to improve communication scores in the hospital consumer assessment of health care practitioners and systems survey. *Perm J*. 2018;22:16-187.

51. Takemura Y, Sakurai Y, Yokoya S, et al. Open-ended questions: are they really beneficial for gathering medical information from patients? *Tohoku J Exp Med*. 2005;206(2):151-154. doi:10. 1620/tjem.206.151

52. Heritage J, Robinson JD. The structure of patients' presenting concerns: physicians' opening questions. *Health Commun*. 2006;19(2):89-102. doi:10.1207/s15327027hc1902_1

53. Frankel RM, Salyers MP, Bonfils KA, Oles SK, Matthias MS. Agenda setting in psychiatric consultations: an exploratory study. *Psychiatr Rehabil J*. 2013;36(3):195-201. doi:10.1037/ prj0000004 **54**. Heritage J, Robinson JD, Elliott MN, Beckett M, Wilkes M. Reducing patients' unmet concerns in primary care: the difference one word can make. *J Gen Intern Med*. 2007;22(10):1429-1433. doi:10. 1007/s11606-007-0279-0

55. Roter DL, Hall JA. Physician's interviewing styles and medical information obtained from patients. *J Gen Intern Med*. 1987;2(5):325-329. doi: 10.1007/BF02596168

56. Beckman HB, Frankel RM. The effect of physician behavior on the collection of data. *Ann Intern Med.* 1984;101(5):692-696. doi:10.7326/0003-4819-101-5-692

57. Takemura Y, Atsumi R, Tsuda T. Identifying medical interview behaviors that best elicit information from patients in clinical practice. *Tohoku J Exp Med*. 2007;213(2):121-127. doi:10. 1620/tjem.213.121

58. Middleton JF, McKinley RK, Gillies CL. Effect of patient completed agenda forms and doctors' education about the agenda on the outcome of consultations: randomised controlled trial. *BMJ*. 2006;332(7552):1238-1242. doi:10.1136/bmj.38841. 444861.7C

59. Eyal T, Steffel M, Epley N. Perspective mistaking: accurately understanding the mind of another requires getting perspective, not taking perspective. *J Pers Soc Psychol*. 2018;114(4):547-571. doi:10.1037/pspa0000115

60. Shapiro J. How do physicians teach empathy in the primary care setting? *Acad Med*. 2002;77(4): 323-328. doi:10.1097/00001888-200204000-00012

61. Blatt B, LeLacheur SF, Galinsky AD, Simmens SJ, Greenberg L. Does perspective-taking increase patient satisfaction in medical encounters? *Acad Med.* 2010;85(9):1445-1452. doi:10.1097/ACM. 0b013e3181eae5ec

62. Bellón JA, Rodríguez-Bayón A, de Dios Luna J, Torres-González F. Successful GP intervention with frequent attenders in primary care: randomised controlled trial. *Br J Gen Pract*. 2008;58(550):324-330. doi:10.3399/bjgp08X280182

63. Drwecki BB, Moore CF, Ward SE, Prkachin KM. Reducing racial disparities in pain treatment: the role of empathy and perspective-taking. *Pain*. 2011; 152(5):1001-1006. doi:10.1016/j.pain.2010.12.005

64. Harmsen H, Bernsen R, Meeuwesen L, et al. The effect of educational intervention on intercultural communication: results of a randomised controlled trial. *Br J Gen Pract*. 2005;55 (514):343-350.

65. Zhou H, Majka EA, Epley N. Inferring perspective versus getting perspective: underestimating the value of being in another person's shoes. *Psychol Sci.* 2017;28(4):482-493. doi:10.1177/0956797616687124

66. Haidet P, Paterniti DA. "Building" a history rather than "taking" one: a perspective on information sharing during the medical interview. *Arch Intern Med.* 2003;163(10):1134-1140. doi:10. 1001/archinte.163.10.1134

67. Deledda G, Moretti F, Rimondini M, Zimmermann C. How patients want their doctor to communicate: a literature review on primary care patients' perspective. *Patient Educ Couns*. 2013;90 (3):297-306. doi:10.1016/j.pec.2012.05.005

68. Epstein RM, Duberstein PR, Fenton JJ, et al. Effect of a patient-centered communication intervention on oncologist-patient communication, quality of life, and health care utilization in advanced cancer: the VOICE randomized clinical trial. *JAMA Oncol*. 2017;3(1):92-100.

69. Levensky ER, Forcehimes A, O'Donohue WT, Beitz K. Motivational interviewing: an evidence-based approach to counseling helps patients follow treatment recommendations. *Am J Nurs*. 2007;107(10):50-58. doi:10.1097/01.NAJ. 0000292202.06571.24

70. Thomas KB. General practice consultations: is there any point in being positive? *BMJ (Clin Res Ed)*. 1987;294(6581):1200-1202. doi:10.1136/bmj.294. 6581.1200

71. Amorose AJ, Horn TS. Intrinsic motivation: relationships with collegiate athletes' gender, scholarship status, and perceptions of their coaches' behavior. *J Sport Exerc Psychol*. 2000;22 (1):63-84. doi:10.1123/jsep.22.1.63

72. Hollembeak J, Amorose AJ. Perceived coaching behaviors and college athletes' intrinsic motivation: a test of self-determination theory. *J Appl Sport Psychol*. 2005;17(1):20-36. doi:10.1080/10413200590907540

73. Ramfelt E, Lützén K. Patients with cancer: their approaches to participation in treatment plan decisions. *Nurs Ethics*. 2005;12(2):143-155. doi:10. 1191/0969733005ne771oa

74. Polonsky WH, Capehorn M, Belton A, et al. Physician-patient communication at diagnosis of type 2 diabetes and its links to patient outcomes: new results from the global IntroDia study. *Diabetes Res Clin Pract*. 2017;127:265-274. doi:10.1016/j. diabres.2017.03.016

75. Hart CN, Drotar D, Gori A, Lewin L. Enhancing parent-provider communication in ambulatory pediatric practice. *Patient Educ Couns*. 2006;63(1-2):38-46. doi:10.1016/j.pec.2005.08.007

76. Zimmermann C, Del Piccolo L, Bensing J, et al. Coding patient emotional cues and concerns in medical consultations: the Verona Coding Definitions of Emotional Sequences (VR-CoDES). *Patient Educ Couns*. 2011;82(2):141-148. doi:10. 1016/j.pec.2010.03.017

77. Coulehan JL, Platt FW, Egener B, et al. "Let me see if I have this right...": words that help build

empathy. Ann Intern Med. 2001;135(3):221-227. doi: 10.7326/0003-4819-135-3-200108070-00022

78. Rakel D, Barrett B, Zhang Z, et al. Perception of empathy in the therapeutic encounter: effects on the common cold. *Patient Educ Couns*. 2011;85(3): 390-397. doi:10.1016/j.pec.2011.01.009

79. Bonvicini KA, Perlin MJ, Bylund CL, Carroll G, Rouse RA, Goldstein MG. Impact of communication training on physician expression of empathy in patient encounters. *Patient Educ Couns*. 2009;75 (1):3-10. doi:10.1016/j.pec.2008.09.007

80. Hall JA. Clinicians' accuracy in perceiving patients: its relevance for clinical practice and a narrative review of methods and correlates. *Patient Educ Couns*. 2011;84(3):319-324. doi:10.1016/j.pec. 2011.03.006

81. Weng HC, Steed JF, Yu SW, et al. The effect of surgeon empathy and emotional intelligence on patient satisfaction. *Adv Health Sci Educ Theory Pract.* 2011;16(5):591-600. doi:10.1007/s10459-011-9278-3

82. Blanch-Hartigan D. Patient satisfaction with physician errors in detecting and identifying patient emotion cues. *Patient Educ Couns*. 2013;93(1):56-62. doi:10.1016/j.pec.2013.04.010

83. Schlegel K, Vicaria IM, Isaacowitz DM, Hall JA. Effectiveness of a short audiovisual emotion recognition training program in adults. *Motiv Emot*. 2017;41(5):646-660. doi:10.1007/s11031-017-9631-9

84. Blanch-Hartigan D. An effective training to increase accurate recognition of patient emotion cues. *Patient Educ Couns*. 2012;89(2):274-280. doi: 10.1016/j.pec.2012.08.002

85. Levinson W, Gorawara-Bhat R, Lamb J. A study of patient clues and physician responses in primary care and surgical settings. *JAMA*. 2000;284(8): 1021-1027. doi:10.1001/jama.284.8.1021

86. Jones J, Hunter D. Consensus methods for medical and health services research. *BMJ*. 1995;311 (7001):376-380. doi:10.1136/bmj.311.7001.376

87. Murphy MK, Black NA, Lamping DL, et al. Consensus development methods, and their use in clinical guideline development. *Health Technol Assess*. 1998;2(3):1-88. doi:10.3310/hta2030

88. Bryan C. *Osler: Inspirations From a Great Physician*. New York, NY: Oxford University Press; 1997.

89. Frankel RM, Stein T. Getting the most out of the clinical encounter: the four habits model. *J Med Pract Manage*. 2001;16(4):184-191.

90. Soh M, Shaner A, Gelberg L, et al. Using the Humanism Pocket Tool for patients with challenging behaviors. *Ann Fam Med.* 2018;16(5):467. doi:10.1370/afm.2300