

CONCEPTS

Pain Management and Sedation

Cultivating emergency physician behavioral empathy to improve emergency department care for pain and prescription opioid misuse

Maher Kazimi MBBS, MPH¹ | Thomas Terndrup MD¹  | Raymond Tait PhD² | Jennifer A. Frey PhD, CCRP¹ | Scott Strassels PharmD, PhD³ | Geremiah Emerson MD¹ | Knox H. Todd MD, MPH¹

¹Department of Emergency Medicine, Ohio State University, Columbus, Ohio, USA

²Department of Psychiatry, St. Louis University, St. Louis, Missouri, USA

³Department of Surgery, Ohio State University, Columbus, Ohio, USA

Correspondence

Thomas Terndrup, MD, Department of Emergency Medicine, Ohio State University, Columbus, OH 43210, USA.

Email: Thomas.terndrup@osumc.edu

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Abstract

Clinical empathy is the ability to understand the patient's experience, communicate that understanding, and act on it. There is evidence that patient and physician benefits are associated with more empathic communications. These include higher patient and physician satisfaction, improved quality of life, and decreased professional burnout for physicians, as well as increased patient compliance with care plans. Empathy appears to decline during medical school, residency training, and early professional emergency medicine practice; however, brief training has the potential to improve behavioral measures of empathy. Improvements in emergency department physician empathy seems especially important in managing patients at elevated risk for opioid-related harm. We describe our conceptual approach to identifying and designing a practice improvement curriculum aimed to cultivate and improve behavioral empathy among practicing emergency physicians. Emergent themes from our preliminary study of interviews, focus groups, and workshops were identified and analyzed for feasibility, sensitivity to change, and potential impact. A conceptual intervention will address the following key categories: patient stigmatization, identification of problematic pain-subtypes, empathic communication skills, interactions with family and friends, and techniques to manage inappropriate patient requests. The primary outcomes will be the changes in behavioral empathy associated with training. An assessment battery was chosen to measure physician psychosocial beliefs, attitudes and behavior, communication skills, and burnout magnitude. Additional outcomes will include opioid prescribing practice, naloxone prescribing, and referrals to addiction treatment. A pilot study will allow an

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estimation of the intervention impact to help finalize a curriculum suitable for web-based national implementation.

KEYWORDS

curriculum, empathy, opioid misuse, pain control

1 | INTRODUCTION

Pain is among the most common complaint presenting to the emergency department (ED)¹⁻⁷ where emergency physicians serve on the frontlines of care for those with both acute and chronic pain conditions. This has always been difficult: patients often report dissatisfaction with the lack of attention to their informational and psychosocial needs,⁸ whereas physicians are often dissatisfied by the mismatch between their professional competencies and patient needs, including expectations for pain relief.⁹ In the current epidemic of prescription opioid-related harm, physicians face additional challenges: in addition to relieving distress associated with painful conditions, they also must limit opioid-related harm. In this challenging context, patients are at risk for stigmatization, as well as over- and under-treatment. High-quality ED pain management is more likely when patient-physician interactions are characterized by empathy, trust, and patient-centered communication.^{5,10} The purpose of this article is to describe our concept for empathic approaches to pain patients. In addition, we propose a web-based practice improvement intervention to enhance the tools and techniques necessary to identify and respond to empathic opportunities in caring for this patient population.

Despite evidence of benefits to training, scant data are available for emergency physicians,¹¹⁻¹³ although several studies examining ED patient communications have emerged in the past few years. This literature explores opioid prescription practices for ED super-users, pain clinic referral patterns for patients at risk for opioid-related harm, and protocols mandating the use of prescription drug monitoring program. There is evidence for significant reduction in ED visits and prescription of opioids associated with implementation of a prescription drug monitoring program.^{14,15} In another study of the impact of family and friends presence, patients with a high school education or less benefitted from the presence of a close friend or family member, with a concomitant positive influence on clinician-patient communications.¹⁶ However, efforts to enhance emergency physician empathic communication among pain patients has received little study.

To promote physician-patient empathic interactions, and enhance patient-centered communication in the ED, we present and describe a curriculum to enhance behavioral, observable measures of empathy, the Emergency Medicine Physician Advances in The Healing of Patients (EMPATH) project. It is an extension of a recent educational curriculum, *EMPainline*, the first practice improvement activity addressing ED opioid prescribing practice to be approved by the American Board of Emergency Medicine (ABEM) in satisfaction of

ABEM recertification requirements.¹⁷ EMPATH also is patterned on the Studying Communication in Oncologist-Patient Encounters (SCOPE) trial, which demonstrated that a 1-hour program to foster oncologists' empathy-related skills improved both physician empathy and patient trust.^{18,19}

A core EMPATH principle is that empathy is not just a stable trait that a physician brings to the experience of caregiving, but that it is constituted of elements that can be specifically targeted and enhanced.^{11,13,20} Empathy has 3 elements: affective, behavioral, and cognitive. Affect refers to the ability to sense a patient's emotional state, behavior refers to the ability to communicate, and cognitive refers to the ability to see the world from the patient's point of view. Although we will be measuring cognitive and affective elements of physician empathy, our primary goal is to influence the behavioral and/or communicative components of empathy. In operationalizing the concept of behavioral empathy, we concentrate on ways to approach the clinical encounter so as to reduce the likelihood of stigmatization, on sensitizing the physician to common dysfunctional responses to pain, and on behavioral indicators of empathic engagement, including patient-centered communications, verbal statements of patient support, as well as nonverbal cues (eye contact, body posture, gestures).

2 | RATIONALE

Patients with pain usually express their emotions (typically negative) with statements that allow the physician an opportunity to respond with empathy. These negative emotions may be expressed directly and spontaneously; however, the discerning physician needs to be aware and sensitive to clues indicating these underlying emotions. Physicians with inadequate communication skills may allow these clues and even direct expression of emotions to pass without acknowledgment, potentially depriving them of important clinical information.²¹

Negative stereotypes and stigma often are triggered when patient with chronic or recurring pain present to the ED with one of the common features that led to ED visit (ie, high levels of severity, lack of convincing medical evidence, comorbid psychological distress). Empathic responses to patients are less likely when patients are stigmatized. Under those conditions, physicians (especially those that are less empathic) are more likely to blame patients for coping poorly with their clinical conditions and may be less likely to partner with them.²² Hence, it is important for physicians to prepare for a clinical encounter in a

manner that reduces the likelihood of negative stereotyping, while also sensitizing them to common dysfunctional patterns.

Another important aspect of empathy is effective communication to specific pain–patient subtypes that may be perceived by physicians as particularly challenging. These subtypes include patients with high fear-avoidance beliefs, catastrophizing ideation, mood disorders, and those presenting with evidence of chemical coping and opioid-related aberrant behaviors.²³ Such communication skill sets to be used in these challenging patient–physician encounters are seen as situation-specific indicators of empathy and deserve special attention in the context of an ED encounter.²⁴

More generally, a good quality improvement training in behavioral empathy would provide techniques to enhance physician skills in recognizing and acknowledging patients' underlying emotional states and promoting empathic responses. When physicians communicate an understanding of emotions and respond effectively to them, they can increase patients' perceptions of physician empathy and enhance trust.^{2,3} In our proposed EMPATH curriculum, encompassed scenarios encourage emergency physicians take advantage of empathic opportunities by recognizing cues indicative of negative emotions, such as fear, anger, grief, and disappointment, and responding to them using scripted statements. The NURSE acronym (Name the emotion, Understand the emotion, Respect the patient, Support the patient, and Explore the emotion) was used to categorize these responses.²¹ Examples of such cases are illustrated through physician-patient encounter scenarios, allowing learners to practice identifying and responding to challenging patients with guidance provided by content experts (Table 1). In recognizing and responding to these opportunities, physicians can make the patient feel heard and understood, resulting in a more satisfying clinical experience for both patient and physician. Ideally, improvements in empathic patient interactions also will positively contribute to a potential decrease in stress and burnout measures in emergency physicians.

3 | CONCEPTUAL INTERVENTION

When dealing with pain patients in the ED, our preliminary study identified unmet needs through the series of focus groups of emergency physicians, nurses, patients, and an online survey among American Chronic Pain Association members. Themes and subthemes identified through the series of focus groups, and are illustrated in Figure 1. Those themes were selected for emphasis in a proposed educational curriculum, they include “empathy,” “stigmatization,” “burden of care,” “shared decision making,” “communication skills,” “physician expectations,” “coping skills,” and “family and friends.” Curriculum methods and assessment measures were further revised through pilot educational workshops and feedback from practicing physicians who reported their views of curriculum feasibility and acceptability.

Based on previous empathy studies, experts' and colleagues' feedback, it was found that a 1.5-hour curriculum with videos and content of vignettes illustrating behavioral empathy and responses to empathic opportunities will enhance behavioral empathy among emer-

TABLE 1 EMPATH curriculum modules

Modules	Purpose	Demonstration
Module 1	Prepare for the patient by avoiding stigmatization	Superior physician behavior and inferior physician behavior toward patients at high and low risk of stigmatization
Module 2	Recognition of pathological pain subtypes	Training to recognize chronic pain behavior subtypes: catastrophizing, chemical coping, somatization, depression
Module 3	Communication skills (verbal/non-verbal) enhancement	Effective nonverbal communication skills (eg, body posture, eye contact, social touch) Superior and inferior communication skills (active listening, empathic recognition and response) Empathic communication skills (Ask-Tell-Ask, NURSE tools, Heart/Head/Heart) Set shared agenda for the encounter
Module 4	Dealing with family and friends	Positive effect of family and friends presence Techniques to avoid triangulation Considering the possibility of patient abuse/neglect by family or friends Recognition of abnormal family and friend patient dynamics
Module 5	What to do when nothing else works—the art of saying “No”	Approach when patients make inappropriate requests for opioids

gency physicians when dealing with pain patients. Five different modules are planned national dissemination. These modules include adequate mental preparation for patients encounters to avoid stigmatization, recognition of pathological pain subtypes (eg, catastrophizing, chemical coping, depression), verbal and non-verbal communication skills (eg, body posture, eye contact, standing vs sitting), dealing with family and friends, and techniques for managing inappropriate patient requests for opioids (Table 1).

Pre- and post-intervention assessment instruments have been selected to evaluate the impact of the curriculum among physician participants. Previously validated instruments will be used to assess a wide range of behavioral changes and outcomes in participating physicians (Table 2). In combination with the educational materials, an evidence-based curriculum will be advanced.

4 | OUTCOME MEASURES

Outcomes of interest in empathic approach to pain patients in the ED are not limited to physicians; benefits to patients and institutional reputation are also considered. Physicians' empathy in patient care and burnout, opioid prescribing behavior and psychosocial beliefs towards

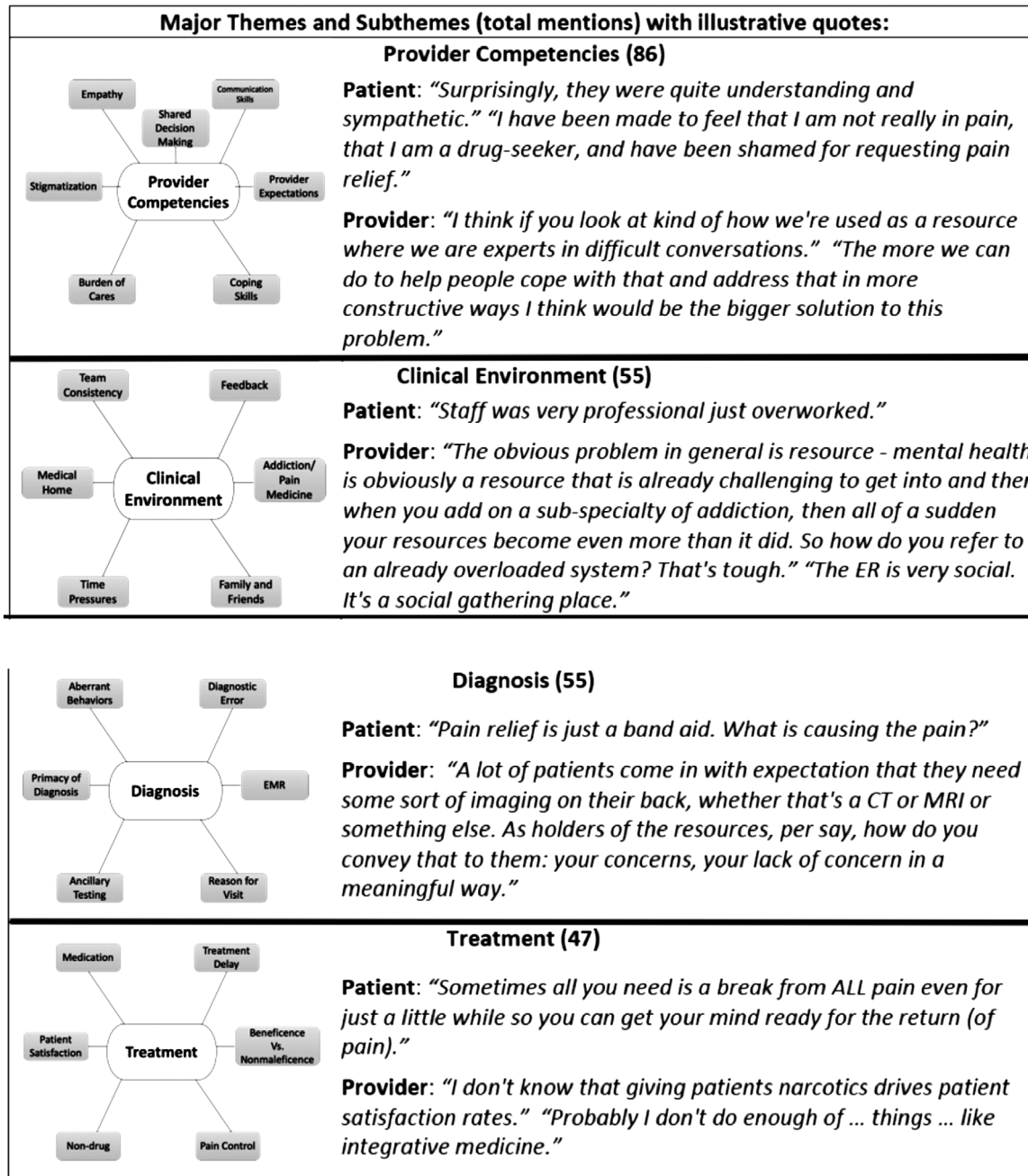


FIGURE 1 Themes and subthemes identified from empathy focus groups

pain patients, as well as communication skills with patients, are measured. Patients' perception of empathy and satisfaction with the emergency physician interaction, participation in shared decision making, in addition to their experience with the care they received in the ED, are also measured. An assessment battery of validated measures is implemented to detect changes in these outcomes.

Outcomes anticipated with such intervention including potential decrease in the perceived burden of care that emergency physicians experience in managing pain patients, with resultant improvements in physician quality of life and decreased professional burnout,⁴ are measured by the EMPATH curriculum. It is also expected that the patient's

perception of enhanced behavioral empathy on the part of the physician will reduce patient stigmatization, improve satisfaction with care, and enhance compliance with treatment recommendations, including the prescription of non-opioid analgesics, instructions regarding safe opioid storage and disposal, naloxone prescribing, as well as referrals to pain and addiction specialists when appropriate.²⁵

A number of validated instruments are available to assess patient- and physician-reported aspects of physician empathy and potential changes in important outcomes that may be related to enhancements in empathic skills. General satisfaction with ED care can be measured through the Medicare & Medicaid Services Emergency Department

TABLE 2 Proposed empathy measure instruments

Instrument name	Outcome/purpose
Physician pre-intervention survey	
Clinician's Attitude Towards Opioid Prescription (CAOS)	Assess beliefs regarding opioid and opioid use in patients with chronic pain
Jefferson Scale for Physician Empathy (JSPE)	Measure empathy in patient care
Physician Communication Skills Survey (PCSS)	Measure the use of communication skills
Physician Belief Scale (PBS)	Measure beliefs about psychosocial
Maslach Burnout Inventory (MBI)	
	Assess burnout (using 3 subscales)
Physician practice audit instrument	
The Consultation and Relational Empathy Measure (CARE)—Physician Modified	Measure the empathic interaction with the patient
Self-reported survey	Validate observed physician behavior in the encounter
Patient practice audit instrument	
The Consultation and Relational Empathy Measure (CARE)—Patient Modified	Patient perception of emergency physician interaction empathy
Pain screener	
	Pain severity and chronicity
Jefferson Scale of Patient's Perceptions of Physician Empathy (JSPPPE)	Patient perception of physician empathy
Emergency Department Patient Experiences with Care (EDPEC)	The experience of patient with the ED care
Shared decision making—collaborative tool	Patient-reported shared decision making process

Experiences with Care (EDPEC) Survey.²⁶ The Jefferson Scale of Physician Empathy (JSPE) is a broadly used measure of self-reported physician empathy,²⁷ and the Jefferson Scale of Patient Perceptions of Physician Empathy (JSPPPE) measures patient-reported perceptions of physician empathy.²⁸

To assess patient perceptions of empathy and shared decision making, the Consultation and Relational Empathy Measure (CARE Measure) is widely used and can readily be modified for physician use as well.²⁹ Physician burnout can be assessed using the medical personnel version of the Maslach Burnout Inventory (MBI).³⁰ To assess physician attitudes and beliefs regarding psychosocial communication skills, the Physician Belief Scale (PBS) is available.³¹

The Physician Communication Skills Survey is a 10-item instrument assessing the use of communication skills and physician confidence in using communication strategies.³² To assess underlying attitudes and belief pertinent to opioid prescribing, we propose to use a modified form of the Clinician's Attitudes and Beliefs About Opioid Survey (CAOS), requiring 1.5 minutes to complete³³ (Table 2).

Although EMPATH is targeted to enhance behavioral empathy, it is possible that cognitive and emotional aspects of empathy may evolve

over time in response to training.³⁴ By fostering superior empathy-related skills and practice patterns (perhaps a form of muscle memory), physician self-perceptions of empathy may improve, creating a virtuous cycle. Previous research suggests that those constructs are at least important covariates likely to influence learners' responses to the EMPATH curriculum.²² If these constructs prove responsive to training, it is more likely that empathic behaviors will be resistant to decay.³⁵

In the light of opioid epidemic, the concept of cultivating behavioral empathy in emergency physician and enhancing patient-centered communication becomes important to improve the quality of ED care for patients with chronic pain who are at risk for opioid use harm. Improvement in the care for this patient population has been reported quantitatively. Whereas, the EMPATH curriculum tends to improve the quality of ED decision making, prevent stigmatization of patients, and improve outcomes for those with chronic pain and their caregivers by promoting physician–patient interactions and patient self-efficacy.

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CONFLICT OF INTEREST

The authors declare no conflict of interest.

ORCID

Thomas Terndrup MD  <https://orcid.org/0000-0003-4376-2593>

REFERENCES

- Hemmerdinger JM, Stoddart SDR, Lilford RJ. A systematic review of tests of empathy in medicine. *BMC Med Educ*. 2007;7:24.
- Wang H, Kline JA, Jackson BE, et al. Association between emergency physician self-reported empathy and patient satisfaction. *PLoS One*. 2018;13(9):e0204113.
- Stewart MA. Effective physician-patient communication and health outcomes: a review. *CMAJ*. 1995;152(9):1423-1433.
- Shanafelt TD. Enhancing meaning in work: a prescription for preventing physician burnout and promoting patient-centered care. *JAMA*. 2009;302(12):1338-1340.
- Kelm Z, Womer J, Walter JK, Feudtner C. Interventions to cultivate physician empathy: a systematic review. *BMC Med Educ*. 2014;14:219.
- 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.
- Schreiber JA, Cantrell D, Moe KA, et al. Improving knowledge, assessment, and attitudes related to pain management: evaluation of an Intervention. *Pain Manag Nurs*. 2014;15(2):474-481.
- Gordon J, Sheppard LA, Anaf S. The patient experience in the emergency department: a systematic synthesis of qualitative research. *Int Emerg Nurs*. 2010;18(2):80-88.
- Wilsey BL, Fishman SM, Ogden C, Tsodikov A, Bertakis KD. Chronic pain management in the emergency department: a survey of attitudes and beliefs. *Pain Med*. 2008;9(8):1073-1080.
- Tait RC. Empathy: necessary for effective pain management? *Curr Pain Headache Rep*. 2008;12(2):108-112.

11. Harlak H, Gemalmaz A, Gurel FS, Dereboy C, Ertekin K. Communication skills training: effects on attitudes toward communication skills and empathic tendency. *Educ Heal Chang Learn Pract*. 2008;12(2):62.
12. Green C, Todd KH, Lebovits A, Francis M. Disparities in pain: ethical issues. *Pain Med*. 2006;7(6):530-533.
13. 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(2):1284-1293.
14. Kahler ZP, Musey PI, Schaffer JT, Johnson AN, Strachan CC, Shuffelbarger CM. Effect of a "no superuser opioid prescription" policy on ED visits and statewide opioid prescription. *West J Emerg Med*. 2017;18(5):894-902.
15. Suffoletto B, Lynch M, Pacella CB, Yealy DM, Callaway CW. The Effect of a statewide mandatory prescription drug monitoring program on opioid prescribing by emergency medicine providers across 15 hospitals in a single health system. *J Pain*. 2018;19(4):430-438.
16. Cornelius T, Moise N, Birk JL, Edmondson D, Chang BP. The presence of companions during emergency department evaluation and its impact on perceptions of clinician-patient communication. *Emerg Med J*. 2018;35(11):701-703.
17. Todd K. *EMPainline: Full Proposal Final Report to Pfizer Medical Education Group and The American College of Emergency Physicians*; 2015. https://pfe-pfizercom-prod.s3.amazonaws.com/funded_initiative_final_report/EMPainline%20Final%20Report%20to%20ACEP%20and%20Pfizer.pdf.
18. Tulskey JA, Arnold RM, Alexander SC, et al. Enhancing communication between oncologists and patients with a computer-based training program: a randomized trial. *Ann Intern Med*. 2011;155(9):593-601.
19. Pollak KI, Arnold RM, Jeffreys AS, et al. Oncologist communication about emotion during visits with patients with advanced cancer. *J Clin Oncol*. 2007;25(36):5748-5752.
20. Jenkins V, Fallowfield L. Can communication skills training alter physicians' beliefs and behavior in clinics? *J Clin Oncol*. 2002;20(3):765-769.
21. October TW, Dizon ZB, Arnold RM, Rosenberg AR. Characteristics of physician empathetic statements during pediatric intensive care conferences with family members: a qualitative study. *JAMA Netw open*. 2018;1(3):e180351.
22. Tait RC, Chibnall JT, Luebbert A, Sutter C. Effect of treatment success and empathy on surgeon attributions for back surgery outcomes. *J Behav Med*. 2005;28(4):301-312.
23. Wilson M, Roll J, Pritchard P, Masterson B, Howell D, Barbosa-Leiker C. Depression and pain interference among patients with chronic pain after ED encounters. *J Emerg Nurs*. 2014;40(3):e55-e61.
24. 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.
25. Cohen M, Quintner J, Buchanan D, Nielsen M, Guy L. Stigmatization of patients with chronic pain: the extinction of empathy. *Pain Med*. 2011;12(11):1634-1643.
26. Weinick RM, Becker K, Parast L, et al. *Emergency Department Patient Experience of Care Survey*. RAND Corporation; 2014.
27. Mørch M, Gonnella JS, Nasca TJ, Mangione S, Vergare M, Magee M. Physician empathy: definition, components, measurement, and relationship to gender and specialty. *Am J Psychiatry*. 2002;159(9):1563-1569.
28. Hojat M, DeSantis J, Gonnella JS. Patient Perceptions of Clinician's Empathy. *J Patient Exp*. 2017;4(2):78-83.
29. Mercer SW, Maxwell M, Heaney D, Watt GCM. The consultation and relational empathy (CARE) measure: development and preliminary validation and reliability of an empathy-based consultation process measure. *Fam Pract*. 2004;21(6):699-705.
30. Maslach C, Jackson SE, Leiter MP. Maslach Burnout Inventory. In: *Evaluating Stress: A Book of Resources*, 3rd Edition, Lanham: Scarecrow Education; 1997:191-218.
31. Ashworth CD, Williamson P, Montano D. A scale to measure physician beliefs about psychosocial aspects of patient care. *Soc Sci Med*. 1984;19(11):1235-1238.
32. Ashbury FD, Iverson DC, Kralj B. Physician communication skills: results of a survey of general/family practitioners in Newfoundland. *Med Educ Online*. 2001;6(1):4521.
33. Wilson HD, Dansie EJ, Kim MS, Moskovitz BL, Chow W, Turk DC. Clinicians' attitudes and beliefs about opioids survey (CAOS): Instrument development and results of a national physician survey. *J Pain*. 2013;14(6):613-627.
34. Hojat M, Vergare MJ, Maxwell K, et al. The devil is in the third year: A longitudinal study of erosion of empathy in medical school. *Acad Med*. 2009;84(9):1182-1191.
35. Cope DW, Linn LS, Leake BD, Barrett PA. Modification of residents' behavior by preceptor feedback of patient satisfaction. *J Gen Intern Med*. 1986;1(6):394-398.

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