

Teaching Doctors to Respond with Empathy: A Pilot Study

by

Laura G. Meyer

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Graduate Supervisory Committee:

Michael S. Shafer, Chair
Daniel E. Epner
Michelle Beyers

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ABSTRACT

Empathy is a critical component of high-quality healthcare. When present in the clinical encounter, empathy is important to physicians (empathy is correlated with reductions in physician anxiety and burnout) and to patients (empathy is correlated with better medical decision making, enhanced trust, and improved treatment adherence). Unfortunately, there is an empathy gap in healthcare—physicians often miss opportunities to demonstrate empathy to their patients. This leaves patients feeling unheard, less likely to bring up details important to their care, and less likely to follow treatment guidelines from physicians, thus disrupting the physician-patient relationship. Luckily, communicating with empathy is a skill that can be taught and learned. With the right tools, learners can strengthen their empathic muscle and become better prepared for responding in difficult situations. The present thesis aims to validate a new tool for teaching empathy to medical trainees. This tool, an empathic communication guide, is drawn from social work as well as medical expertise. It is catered specifically to how medical trainees are accustomed to learning and provides the actual words to say in order to respond with empathy in difficult situations. A group of 8 palliative care fellows at MD Anderson Cancer Center in Houston, Texas received a copy of this guide and participated in an accompanying communication workshop. To gauge empathic responding ability, fellows completed pre- and post- surveys and patient simulations. These data were analyzed using a combination of novel and established methods for quantifying empathic behaviors. Fellows' empathic communication skill significantly improved after exposure to the guide opening avenues for future study and application.

DEDICATION

To the skilled physicians who inspired this work
and the patients who inspire them.

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CHAPTER 1

INTRODUCTION

A young man is on his way to a doctor's appointment. He is eager to see the results of his most recent MRI as they will determine if he is eligible for more chemotherapy now, or if he will have to wait. He does not want to wait. He is tired of feeling short of breath but he believes he can get stronger and better every day. At the same time, a medical fellow is preparing for the day's appointments. She is covering for a colleague and is nervous about seeing new patients—she does not have rapport with these patients and is unable to imagine how they will react to her, especially if there is bad news. The first appointment is with this young man, in his early thirties, who has a history of lung cancer. The fellow looks at the man's MRI scan and sees that the cancer has metastasized and progressed rapidly. What can she say? This will be a difficult appointment.

When the man arrives at his appointment, he admits to his new doctor, "I'm scared. I can't think about not being there for my family." He feels impatient to get the MRI results. He knows they will ease his worries. The doctor responds, "You haven't responded to treatment in the way we'd hoped." She adds, "We have counselors available to talk with you about how to have these conversations with your family."

Critical Communication in Cancer Care

There are two sides to every clinical encounter: physician and patient. High-quality healthcare requires a common understanding to bridge these two perspectives. Empathy, or the ability to understand what another person is feeling, is critical in fostering effective patient-physician interactions. Ample research in the past decade has shown that effective empathic communication in the clinical encounter ultimately promotes the well-being of

both the patient and provider (Derksen, Bensing, & Lagro-Janssen, 2013; Ferreira, Afonso, & Ramos, 2019; Lelorain, Bredart, Dolbeault, & Sultan, 2012; Wagaman, Geiger, Shockley, & Segal, 2015). By strengthening the relationship between the doctor and patient, a physician's demonstration of empathy in the medical setting can improve a patient's treatment adherence and quality-of-life, decrease both patient and provider anxiety, and prevent clinician burn-out (Derksen, Bensing, & Lagro-Janssen, 2013; Ferreira, Afonso, & Ramos, 2019; Wagaman et al., 2015). Empathy matters.

Many physicians enter medicine because they care—they care about people, and they want to make their lives better. This care is embedded in their Hippocratic oath, to “do no harm.” Despite the importance of empathy in patient encounters and the care inherent in their practice, multiple studies have demonstrated that healthcare providers miss many empathic opportunities (i.e. any emotionally charged situation) (Morse, Edwardsen, & Gordon, 2008; Pollak et al., 2007; Suchman, Markakis, Beckman, & Frankel, 1997). When a doctor is unable to express empathy to his or her patients, it can leave patients feeling unheard, shocked, and demoralized. The ability of the doctor to imagine what a patient is thinking and feeling is only part of empathy. Empathy can be considered as encompassing two steps: (1) *feeling with* someone else, or standing in someone else's shoes, and, (2) *expressing* this feeling or “responding with empathy.” Empathy requires caring, but it also requires communication that conveys understanding and caring between the two parties. Although doctors care for their patients, they may struggle to communicate empathy to their patients.

Empathy is a skill that can be taught and learned (Epner & Baile, 2014; Helen Riess, 2017; Kelm, Womer, Walter, & Feudtner, 2014). As such, an understanding of

medical education can shed light onto the existence and character of the empathy gap. First, medical trainees are technical learners, and second, medical schools emphasize biomedical content over psychosocial training (Pedersen, 2010). Medical trainees are skilled at memorizing a great deal of biomedical data which builds onto an intricate conceptual framework of human physiology and health. An analogous conceptual framework does not exist for them in the psychosocial domain. Physicians are left unprepared to face emotions in the clinical situation. Another factor is the lack of educational curricula to teach effective responding in emotional situations (Pham, Bauer, Balan, 2014). In other words, many physicians know what empathy is on a conceptual level, but they often have trouble recognizing empathic opportunities and do not know precisely what words to use to communicate empathy when emotion arises. Under such circumstances, providers often default to biomedical or factual responses—what they know and were trained to do—rather than occupying the emotional space with the patient at least briefly (Morse et al., 2008). Fortunately, with the right tools and practice, physicians can strengthen their ability to communicate with empathy, closing the persistent empathy gap in healthcare.

Empathy and Social Work: Closing the Gap with Interprofessional Practice

The social work focus provides the psychosocial complement to the physician's medical focus. Social workers possess highly developed empathic and relational building skills; medical social workers are uniquely situated to help close the empathy gap in healthcare. Core competencies in social work practice include the ability of the provider to connect with vulnerable and oppressed populations, and of course, empathy (Gerdes & Segal, 2011; NASW, 2017). As a critical part of their education to serve this aim, social

workers are trained to use empathy to foster a therapeutic alliance with their clients, providing a collaborative and empowering approach to supporting clients' goals (Ardito & Rabellino, 2011; Gerdes & Segal, 2011). This emphasis on empathy and relationship reflects what is missing in medical education: medical education underemphasizes the psychosocial domain of care, whereas social work education excels here.

Hospital social workers, especially in cancer care, aim to support holistic patient care by supporting patients and their families through emotional, financial, and social stressors and griefs that accompany hospitalizations (Gibbons & Plath, 2009). As part of the integrated care team, at MD Anderson Cancer Center in Houston, social workers are embedded into nearly every department (MD Anderson, 2019d). In hospital settings like this one, an interprofessional partnership between physician and social worker is in the best interest of the patient (and their family). First, social workers work alongside physicians to provide the patient with the psychosocial “ying” to the physician’s medical “yang.” In addition to providing complementary aspects of holistic care to patients, social workers and physicians can team up in a consultative fashion, sharing knowledge with each other to provide more complete client care (Downey, Neff, & Dube, 2019). Not only does this partnership provide enhanced quality and continuity of care for the patient, but it has the potential to enrich both the social workers’ and physicians’ own competencies. In the present thesis, the role of social work is not only to bring empathic expertise, but also to bring insight into project design and management, including information gathering and evaluation methodologies. The specific aim of this project is to develop, implement, and test an educational intervention in order to support empathic communication ability

in physicians that mirrors this ability in social workers. This guide acts, in effect, as a translation of social work competencies into a format that is useful for physician learning.

A Guide to Empathic Responding: A Novel Tool to Develop a Powerful Mindset

This project reports on the design and pilot-test evaluation of an educational guide and accompanying workshop designed to enhance empathic communication. The new empathic responding guide was created out of a collaborative effort between Daniel Epner, M.D., professor and former oncologist now practicing palliative medicine at MD Anderson Cancer Center in Houston, Texas, and Laura Meyer, ASU Master of Social Work student and summer 2019 Cancer Prevention Graduate Research Fellow at MD Anderson. The educational guide, the *Occupying the Emotional Space Guide* (henceforth, the Guide) is specifically tailored to medical trainees and medical professionals and how they are accustomed to learning, namely through memorization and reflection (Meyer & Epner, in preparation). The Guide provides learners with a sampling of words and phrases to say in order to convey empathy in emotionally charged clinic situations. An accompanying empathic communication workshop (the Workshop) was developed to further build skills through behavioral rehearsal and reflection of new empathic skills.

The Guide and Workshop were developed with qualitative research methodology integrating an extensive literature review, a qualitative survey of expert clinicians and shadowing experiences, and a focus group of expert clinicians including physicians, nurse practitioners, and a psychologist (Meyer & Epner, in preparation). It is anticipated that this guide will support the building of clinicians' empathic skills, enabling them to better connect to their patients.

CHAPTER 2

BACKGROUND

MD Anderson Cancer Center: Partnership and Educational Initiatives

MD Anderson was created as part of the University of Texas (UT) System in 1941 and quickly became a leading cancer institution, designated as one of three original “comprehensive cancer centers” by the National Cancer Act of 1971 (MD Anderson, 2019b). As part of the UT system, MD Anderson has pursued the provision of innovative and high-quality education to medical professionals of all types since the beginning, and this continues to be part of the mission today. Over 75 years after its establishment, MD Anderson is committed to setting the industry standard in both cancer care and cancer education and has succeeded in doing so, being named “#1 in cancer care” in 2019 and rated among the top two cancer treatment hospitals in the world consistently since 1990 (U.S. News and World Report, 2019). Today, together with over 20,350 employees, 7,080 trainees, and 146,600 patients annually, MD Anderson holds a vision of “Making Cancer History,” through research, education, and clinical programs that comprehensively target cancer prevention, treatment, and survivorship (MD Anderson, 2019b; MD Anderson, 2019c).

To achieve its vision, MD Anderson has adopted an integrated model, providing more than just curative treatment at every point on the cancer continuum: social work staff are integrated into every hospital department and interact with virtually every patient; and MD Anderson has championed a robust Palliative, Rehabilitative, and Integrative Medicine (PRIM) Department (MD Anderson, 2019d; Wendler, 2015). At MD Anderson, palliative medicine (also known as “Supportive Care”) is provided to

patients to mitigate symptoms, control pain, and provide psychosocial care throughout the cancer and survivorship process, not just at the end of life (MD Anderson, 2019a; MD Anderson, 2013; Wendler, 2015). The PRIM department, chaired by Eduardo Bruera, M.D., supports research and educational initiatives that are centered on collaborative and psycho-social learning. These initiatives rest on core MD Anderson values to promote caring, integrity, and discovery in all research, education, and clinical domains (AAHPM, 2014; MD Anderson, 2019b). The subject of the current thesis, the Guide, was conceptualized and created as one of these educational research initiatives.

Conceptualizing and Creating the Empathic Responding Guide

I arrived at MD Anderson in Houston in the summer of 2019 after being awarded an NCI-R25 funded fellowship with the Cancer Prevention Research Treatment Program (CPRTP) at MD Anderson. As part of the CPRTP experience, I was asked to identify an MD Anderson faculty or researcher to collaborate with, and was fortunate to discover and connect with experienced palliative care physician, Daniel E. Epner, MD. Dr. Epner had already been concerned with developing new ways to train medical professionals in expressing empathy, and with my arrival, we decided together to create an empathic responding guide, tailored to medical trainees and how medical trainees are accustomed to learning, namely by memorizing vast amounts of information and building upon this information. Dr. Epner would contribute his specific medical expertise and resources to the guide's development, while I would bring the social work perspective that is valued in MD Anderson's overall approach.

To complete this empathic responding guide, we first conducted a literature review to learn more about the impact of empathy in patient care and to operationalize

empathy by defining its components and reviewing how empathy is measured in the medical system. Then, we used the literature base to inform ideas on how medical students learn best and to find out what kinds of empathic education already exist for medical trainees. This review helped to establish that a gap in psychosocial education does in fact exist in medicine.

After identifying the need for empathic education and designing the framework for how the material would be presented, we surveyed physicians, advanced practice providers (APPs), and psychosocial providers in the PRIM department at MD Anderson to gather examples of the “conversations with patients and families that providers have found most challenging” in their clinical practice. The survey resulted in 65 examples produced by 23 providers. Using a thematic analysis procedure, responses were hand-coded to identify themes of difficult situations that arise in cancer care. A few major themes emerged that then formed the basis of the Guide. Figure 1 provides an overview of the organization of the guide and the included themes of difficult situations.

Figure 1

Overall Organization of the Empathic Responding Guide

1. A framework for empathy in patient care
2. General empathic phrases
3. Laying the foundation for empathy
4. Themes and example responses:
“Denial”
Prognosis
Family Impact
Difficult Family Dynamics
Existential Concerns
Anger
Opiate Use/Uncontrolled Pain
Universal themes

Note: The guide begins with a conceptual framework of empathy and leads into example situations and responses. The survey of palliative clinicians produced seven major themes, and the focus group brought up an additional theme: anger.

Under each theme, we included several examples that represent patient statements that are inherently emotional or difficult to respond to. For instance, a patient who has learned that they are no longer a candidate for disease-directed treatment may ask, “You’re just going to let me die?” We compiled examples from the survey and from shadowing experiences at MD Anderson. Each patient statement was then paired with an example of a traditional, biomedical response to the situation and a recommended, empathic response (Figure 2).

Figure 2

Empathic Responding Guide Example Structure

Traditional Response	Empathic or Exploratory Response
"Of course, I'm depressed! Wouldn't you be if you were told you are going to die?"	
"I hate to ask such a sensitive question, but have you considered taking your own life?"	"It must be incredibly difficult to hear such serious news. I can't imagine..."
"Why can't you cure him?"	
"He hasn't responded to treatment in the way we'd hoped."	"I wish we could do more for him."
"What if I'm not there for my daughter's sixth birthday?"	
"Let's try and get you stronger."	"That must be terrifying to think about. I hear you."

Note. Within each theme are examples of difficult situations, represented by a break in the columns. Beneath each situation are example responses: traditional responses on the left and empathic responses on the right.

Lastly, we held a focus group with five physicians, two APPs, and one psychologist from the PRIM department to gather feedback on a mockup version of the guide. A thematic analysis of feedback from this the focus group helped to enhance usability and finalize the Guide's structure. The empathic responding Guide resulting from these efforts is a pocket-sized, 22-page document that contains examples of difficult clinic scenarios and provides examples of responding empathically in each scenario (Meyer & Epner, in preparation).

Empathic Responding Guide and Workshop

In the present study, we pair the new empathic responding guide with a 90-minute communication workshop to form the empathic communication training intervention. The

Workshop begins with a short didactic lecture that provides a conceptual framework of empathy in patient care and reviews the components of the Guide. This lecture is followed by a hands-on role-play and reflection activity. Lastly, a pre- and post-intervention experiential learning activity (a patient simulation with a patient actor) were developed to measure empathic communication ability and to provide learners with additional space for reflection.

The empathic responding guide was conceptualized with an intent to teach empathic communication in a compact, easily digestible form that caters to technical learners, such as medical students and medical professionals. Medical students are considered strong technical learners due to their propensity to memorize and digest information as a critical component of success in medical school (Farnsworth, 1991; Schei, Johnsrud, Mildestvedt, Pedersen, & Hjørleifsson, 2018). Moreover, the experiential learning and reflective practice components of the workshop role-play and patient simulation are meant to support the efficacy of the empathic responding guide. These activities mirror established understandings of learning through behavioral rehearsal—they provide learners with the opportunity to put their knowledge into practice and receive constructive feedback to foster continued skill refinement (Ahrweiler et al., 2014; Back et al., 2003; Bonvicini et al., 2009). Keeping these assumptions in mind, the value of the Guide is based upon the following hypothesis:

If medical learners read the empathic responding guide and attend the empathic communication skills workshop, then they will improve their ability to respond empathically to their patients.

In short, the Guide and Workshop aim to strengthen each learner's empathic responding muscle, leaving learners better prepared for emotional encounters in clinical practice.

Study Design

To test the effectiveness of the present intervention, we designed a pilot study to measure empathic responding ability in a group of MD Anderson Cancer Center Palliative Care fellows. The experimental evaluation of the Guide is based on the following research-based premises:

- Empathic communication is a skill that can be taught, learned, and refined over time.
- Medical learners are skilled at learning by memorizing concrete pieces of information and then practicing with this information to build skills.
- Clinicians at any level will be able to benefit from empathic communication training.

In order to examine the overall effectiveness of the empathic responding program, the present analysis seeks to record an improvement in empathic responding skills. These skills will be measured through fellows' responses to qualitative empathic responding surveys and by the number of successful empathic phrases that each individual fellow utters in response to empathic opportunities given by a standardized patient. To evaluate these data from the fellows, the present study uses a single-group, quasi-experimental design. All fellows completed pre-measures of empathic communication ability, participated in the intervention, and completed post-measures of empathic communication ability. We quantified behavior change for the fellows by comparing pre- and post- measures of empathy in a pre-post design.

Research Questions

In order to evaluate the efficacy of the Guide to support empathy skill-building, the present analysis seeks to answer the following:

- 1.) Is the empathic responding guide an effective empathy training tool for physicians, and if so, to what extent does the empathic responding guide improve learners' empathic responding skills? (i.e., to validate the Guide).
- 2.) Is there concurrent validity between different established and novel measures of empathy used in the present study?
 - To what extent do observed changes in physicians' empathic responding in patient simulations correlate with changes in survey responses?
 - To what extent do these two changes correlate with changes observed in evidence-based rating methods?

First, the evaluation seeks to clarify whether the Guide and Workshop effectively promote changes in empathic behavior and to demonstrate if the Guide and Workshop have face-validity: i.e., is the program producing the changes it is promoting?

This is measured as the frequency with which fellows respond to emotional expression from their patient with empathic phrases rather than factual or biomedical phrases.

Second, the present evaluation seeks to clarify if there is concurrent validity between the empathy measures used in this proposal. The evaluation compares the qualitative empathic responding survey with a more established method of identifying and measuring the effectiveness of an empathic response in video-recorded patient-provider interactions (as in Morse et al, 2008) and with an evidence-based method for evaluating general clinician responses commonly used in social work.

CHAPTER 3

METHODS

Data Collection: Empathic Communication Training for Fellows

In August of 2019, a pilot group of MD Anderson Palliative Care Fellows received a copy of the empathic responding guide and participated in the accompanying workshop. Seven of the eight fellows completed all data collection measures: pre-measures (empathic responding survey and patient simulation) and post-measures (empathic responding survey and patient simulation). Fellows also completed a post-survey outlining empathic knowledge, skill, and confidence, but this data was not analyzed for report in the present paper. One fellow did not complete the pre-intervention patient simulation, so is not represented in the sample with simulation data.

Sample

Participants in the present pilot include the 2019-2020 cohort of MD Anderson Department of Palliative Care fellows. This cohort contains eight fellows who are completing a year-long clinical and educational fellowship within the PRIM department. This group represents a convenience sample, as these fellows are part of the OES program's home department and are required to attend monthly communication workshops as part of the fellowship program. The OES workshop was easily incorporated into the palliative fellows' curriculum and took place as the first month's workshop. All fellows who participated received a copy of The Guide and reported having read it, and all fellows participated in the workshop. One fellow did not participate in the first patient simulation, but the other seven fellows participated in all activities. Of the eight fellows, four were female and four were male. Five of the fellows identified as Caucasian, one

identified as being of Asian descent, and one identified as Asian Indian. Six fellows reported their age and years in practice. On average, the fellows had 4.6 years of experience (comprised of residency and the present fellowship). Six fellows reported their age. Their ages ranged from 30-33 years and the average age was 31 years old. Individual differences between participants' gains in empathic responding skill after completing the intervention and measures as described in the present paper will be partially explained by baseline experience levels, baseline empathy, and each participant's level of engagement with the empathic responding guide and workshop.

Empathic Responding Ability

To measure a change in behavior as a result of The Guide and Workshop, empathic responding ability data was collected via two methods: observation (using video-recorded patient simulation) and survey (using an open-ended qualitative empathic responding survey). These methods aim to measure the rate of successful empathic responses to in-vivo patient simulations and written example patient scenarios, respectively. Data collection for each method occurred at two different times: one week before the workshop (pre), and one week after the workshop (post). The fellows were given a copy of The Guide after they completed the first patient simulation and were encouraged to read it before the Workshop.

Patient Simulation. Each patient simulation had two parts and took 30 minutes to complete. Fifteen minutes were devoted to the simulation. In the simulation, (which was video recorded with the participant's verbal consent at the time of the session), the fellow interacted with an actor who portrayed a patient with cancer. In the remaining time after the simulation itself, the fellow and Dr. Daniel Epner, their professor in the Department

of Palliative Care and facilitator of the workshop, viewed the tape of the simulation and spent time debriefing and reflecting on what went well or poorly during the interaction.

In the first session, before the intervention, the patient simulation portrayed a 45-year-old man with a diagnosis of colon cancer that was no longer responding to treatment. The patient was struggling to come to terms with the prognosis and what it meant to his family. In the second session, after the intervention, the patient simulation portrayed the same patient whose cancer had progressed despite therapy, rendering him frail, debilitated, and dependent on supplemental oxygen. The patient actor remained consistent through each fellow's simulation exercise and remained consistent over both the pre- and post- sessions. In both scenarios, the patient actor was given a script outlining his medical history, his emotion and personality, his social situation (i.e., family), and his treatment history with MD Anderson. Lastly, the script outlined what was expected in the present appointment, including the patient's hopes for the visit and other expected emotional complications. To provide focus to the session, the patient actor was given eight specific phrases to say over the course of the simulation that were meant to evoke an empathic response from the doctor. These eight phrases are considered empathic opportunities (Morse, Edwardsen, & Gordon, 2008). For instance, in the second scenario, the simulated patient was instructed to say, "I am ready for this to be over." This statement provides an opportunity for the fellow to respond with empathy, so is an empathic opportunity. The patient actor uttered at least these eight phrases in the scenario, but the exact way the session unfolded was affected by how the fellow responded to the patient. The patient actor remained consistent through each fellow's simulation exercise and the empathic opportunities uttered by the patient in each

simulation were largely consistent for each fellow. Also, the actor remained consistent over both the pre- and post- sessions. Appendix A includes an excerpt of the patient script used for the second simulation.

Empathic Responding Survey. The pre- and post- open-ended qualitative empathic responding surveys were formatted in identical fashion and each take about 15 minutes to complete. The pre-survey contains 12 patient statements, and the post-survey contains 13 patient statements. Each statement represents a conversation stem (from the perspective of the patient) that a physician may encounter in clinical practice. Each survey asks the participant to type out their response to each patient statement as if they were encountering it in vivo in the clinic. For example, the pre-survey includes the patient statement, “What if I’m not there for my daughter’s sixth birthday?” Similar to the emotional phrases in the patient simulation, this statement is meant to evoke an empathic response from the doctor, as it represents an “empathic opportunity” (Morse et al., 2008). Each survey contains three distractor patient statements not meant to evoke an empathic response, but a factual response, instead. For example, the pre-survey contains a distractor that poses the patient question, “What does ‘Medical Power of Attorney’ mean?” The fellow is simply meant to respond with the definition. The items that include distractors were omitted from the data analysis for each survey. Appendix B includes the first page of the pre- empathic responding survey followed by the first page of the post-empathic responding survey. In these excerpts, items 1,3,4,6, and 7 from the pre-survey and items 1,2,4, and 6 are empathic opportunities that require an empathic response from the fellow. The other items are distractors that do not require an empathic response and were left out of coding.

Data Analysis

Empathy Success Rate and the Complexity of Empathy

Behaviors first outlined by Pollak et al., are considered the building blocks of empathic communication in the medical literature. The NURSE acrostic framework introduced there outlines five behaviors that make up empathic communication in medicine: **N**aming the patient’s emotion, showing **U**nderstanding of the emotion, demonstrating **R**espect for the patient, showing **S**upport of the patient, and using **E**xploration to help the patient tell their story (Pollak et al., 2007). The NURSE framework has been previously used to categorize physicians’ responses to empathic opportunities presented in clinic scenarios, and is the primary metric of empathy used in the present thesis (Morse et al., 2008; Pollak et al., 2007). Examples of each NURSE behavior are shown in Figure 3.

Figure 3

NURSE Framework for Empathic Communication

N	Naming	I hear you’re feeling sad/nervous/angry...
U	Understanding	I can/can’t imagine how you’re feeling. It must be difficult to feel... It makes sense you’re feeling this way...
R	Respect	I respect/admire your... You’ve done a great job... I applaud your courage...
S	Support	We will be here for you throughout this process/no matter what happens. You are not alone.
E	Exploration	Tell me more about...

Note. The examples in Figure 3 were used in the beginning of the Guide to provide an overview of empathic communication for the fellows. These examples were then used as a template for coding the presence of fellows’ empathic behaviors in the pilot study.

In this study, the NURSE framework is used to determine the extent to which empathy is present in the fellows' responses to empathic opportunities. NURSE behavior counts are first used to determine if empathy is present in the response—if one NURSE behavior is present in the physician's response, the response is considered empathic. The rate of empathy is then calculated as the number of successful empathic responses per empathic opportunity. Next, the rate of each individual NURSE behavior is calculated as the number of each individual behavior per empathic opportunity. Tracking the rate of these behaviors which underly empathy adds a layer of nuance to the data analysis and helps to explain variation in the overall rate of empathy. The rates of each NURSE behavior are also used to indicate the well-roundedness of each fellow's empathic responding ability. Lastly, the complexity of each fellow's empathic responses is calculated as the average number of NURSE behaviors present in each successful empathic response. Using more than one NURSE behavior at a time is considered more complex. Like the rate of each NURSE behavior, complexity adds an additional layer of nuance to data analysis.

Analysis of Empathy in Simulation Data. Patient simulations were coded and analyzed following a previously established method for capturing, identifying, and rating a provider's response to empathic opportunities expressed by the patient. As outlined by Morse, Edwardsen, and Gordon in 2008, this method involves first identifying the presence of empathic opportunities, or patient statements that convey emotion explicitly or implicitly (Morse et al., 2008). These emotional statements give providers an opportunity to respond with empathy. Next, coders identify and record the subsequent response(s) of the provider and lastly rate and categorize these responses using the

NURSE method (Morse et al., 2008). In the present study, the method has been slightly altered from the Morse et al., procedure, and does not include transcription. In order to code each patient simulation, each recording was viewed twice. The simulations were coded by hand using a code sheet (Appendix C).

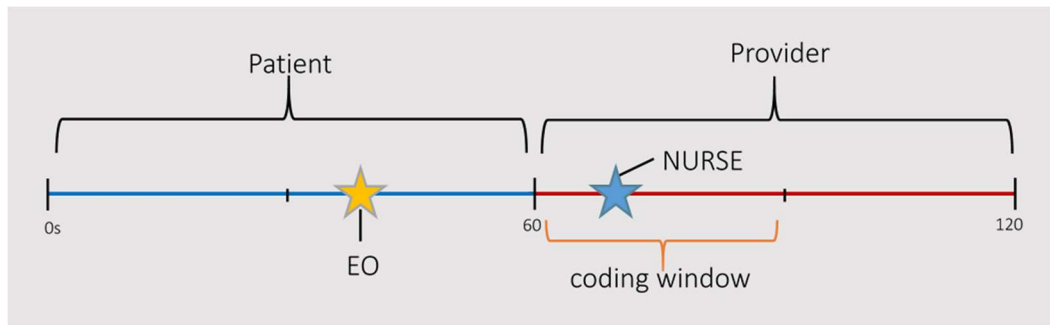
During the first viewing, the coder (Meyer) rated “global Empathy” based on a 5-point rating scale and measured the duration of patient talk time (Moyers, Manuel, & Ernst, 2014). Patient talk time was measured by using a stopwatch. When the patient spoke, the count began. When the patient finished speaking and the fellow began speaking, the count would pause. In the event of silence after the patient stopped speaking but before the fellow began speaking, the silence was not included as patient talk time. When the patient resumed speaking again, the count would resume. The total patient talk time and the start and end times of the simulation were recorded. To calculate the percentage of the session that the patient spoke (% patient talk time), the patient talk time was divided by the total time of the recorded interaction. To score the fellow’s global Empathy, or overall empathic presence, the coder utilized the Motivational Interviewing Treatment Integrity (MITI) global Empathy scale, watched the complete encounter, and then read the MITI Empathy scale again to assign a score. The score (1-5) was assigned based on the fellow’s overall effort to understand the patient’s experience and point of view.

In the second viewing, the coder recorded the time of each empathic opportunity and then watched the fellow’s response to record NURSE behavior counts. Figure 4 provides an example of a two-minute excerpt from a patient simulation and shows how the excerpt would be coded. The timing of the empathic opportunity was recorded as the

final utterance by the patient before the fellow had a chance to respond. For instance, if the patient stated “I feel scared” at three minutes and ten seconds into the simulation, and continued (in the same utterance) to describe their symptoms or provide the fellow with other information that did not comprise an empathic opportunity for another one minute and five seconds, the timing of the empathic opportunity would be recorded as “4:15” or at the conclusion of the patient’s statement. This method of recording the timing of the opportunity was used as it enabled coding of the fellow’s response in relation to the amount of time the fellow was able to speak. If the empathic opportunity in the previous example was measured as at the elapsed time of 3:10, and the fellow did not respond with an empathic behavior until 4:30, the empathic response would be considered outside of the coding window used in the current assessment. This would not yield an accurate measure, as the fellow was unable to speak until 4:15, when the patient finished speaking. As such, the timing of the empathic opportunity is measured as the time that the patient finishes speaking, regardless of whether the last comment made by the patient was inherently emotional. Then, the window for coding the fellow’s response follows immediately when the patient finishes speaking. Although silence is sometimes the most appropriate response (if followed by an empathic response), if present, silence was included in the coding window and not coded as a successful empathic behavior. The issue of strategic silence will be returned to in the discussion of limitations of this study.

Figure 4

Excerpt Example of Patient Simulation Coding



Note. Figure 4 shows an example 2-minute excerpt of an observed patient simulation. The timing of the fellow’s response to the patient’s empathic opportunity (EO) begins at the end of the patient’s utterance that includes the EO. In this case, the 30-second coding window for the fellow’s response begins at 60 seconds.

As shown in Figure 4, behavior counts were tallied in the first 30 seconds of the fellow’s response to the empathic opportunity. Each response could contain up to five tallies, one for each NURSE behavior. Each behavior was counted once—the response could not receive more than one tally for a single type of behavior. For example, if the fellow stated “I can’t imagine how you feel. I respect your courage. It’s understandable that you are struggling,” they would receive two tallies. The response would first receive a tally for the NURSE behavior, Understanding, for “I can’t imagine how you feel,” and receive a tally for the NURSE behavior, Respect, for “I respect your courage.” The second instance of Understanding, “It’s understandable that you are struggling,” would not receive an addition tally as the fellow has already gained a tally for Understanding. As such, the NURSE behaviors were coded individually and then combined in a summative 1-5 scale.

Analysis of Empathy in Survey Data. The responses to the qualitative empathic responding survey were coded and analyzed for empathy using the same method as in the simulation analysis, adapted for use in written form. The survey used in the present research was developed to reflect the structure of the Guide as much as possible, so was coded in a similar fashion to the patient simulations. Just as in the patient simulation coding method, the coder rated for the presence or absence of empathy. Empathy was defined as present if at least one of these NURSE components was present in the response. The number of responses that met this NURSE requirement yielded a measure of the rate of successful empathy for each participant through the overall survey.

Comparison of Measures and Concurrent Validity

In order to determine the extent to which the observed changes in the fellows' empathic responses in patient simulations correlate with changes in responses to the qualitative surveys, the results from the surveys were compared with the results from the coded patient simulations. Concurrent validity was determined by comparing the average Δ scores in empathic responding rates from the simulation analysis with the average Δ scores in empathic responding rates obtained from the survey coding. Comparing the magnitude of change detected by each measure helps in establishing whether the methods correlate with one another and whether the survey method can be feasibly used on its own in future studies.

In addition to measuring concurrent validity, the data gathered in the present analysis will include a comparison to an evidence-based model for measuring qualitative, difficult to define terms such as empathy. Specifically, the global Empathy scale from Moyers, Manuel, & Ernst's (2014) MITI coding manual was adapted for use in the

present study in two ways. First, the global Empathy scale was used to rate the fellows' overall empathy in the patient simulations. Second, the global Empathy scale was adapted for the qualitative survey data and was used as a rating scale for each individual survey response. This method was not originally designed for use in isolated written responses and is therefore not evidence-based for this method. As such, in order to strengthen the analysis of concurrent validity, the global scores from the patient simulations were compared to average global scores in the fellows' survey responses. In addition, the MITI and NURSE empathic evaluation methods were compared in both patient simulation and qualitative survey analysis.

CHAPTER 4

RESULTS

Data analysis was primarily aimed at validating the empathic responding educational program by answering this question: Did fellows' empathic behavior change as a result of reading the Guide and participating in the Workshop? We evaluated the fellows' empathic performance in patient simulations and in their responses to the qualitative survey by analyzing changes in overall empathy and changes in the NURSE behaviors that underly empathy. Data analyzed from the patient simulations have been the primary focus of the present study. Specifically, patient simulation data were analyzed to detect changes in overall empathy, specific empathic NURSE behaviors and well-roundedness of responses, and complexity of empathic responses. The relationship between patient-talk time and empathic performance have also been noted in the present analysis. Results from the analysis of the qualitative survey responses were not as rich as the simulation data results, so they have not been the focus of the subsequent report on empathic ability. Instead, survey data have been reported on only in the exploration of concurrent validity.

A secondary aim of data analysis was to determine whether concurrent validity exists between various empathy measurement tools by addressing two sub-questions: (1) To what extent do observed changes in fellows' empathic responses to empathic opportunities in patient simulations correlate with changes in qualitative survey responses, and (2) To what extent do these two changes in fellows' responses in the simulation and survey correlate with changes observed in the MITI global Empathy rating scores? The analysis of simulation data was compared to the analysis of survey

data to gauge the validity of using the NURSE framework to evaluate both written and observed responses. This comparison helped to evaluate whether empathic responding survey analysis has concurrent validity with patient simulation analysis, and therefore whether the survey is useful on its own for evaluating empathy. This result is of interest as the surveys used in this pilot test are novel, unevaluated tools that were developed to align with the Guide. The data analysis was also compared with an established evidence-based model, the MITI global Empathy scale, in order to explore the validity of using the NURSE behavior evaluation method overall (Moyers, Manuel, & Ernst, 2014).

In all analyses, a one-tailed paired t-test was used where appropriate to determine the significance of the observed difference between pre- and post- intervention measures. As the present study aims to confirm whether the empathic responding guide *improves* empathic behavior (a change specifically in one direction), a one-tailed test is sufficient to determine significance. T-test were conducted using Microsoft Excel data analysis software. Table 1 provides an example of the t-test output in Excel. Table 1 specifically showcases the test evaluating the difference between the rate of empathy in the pre- and post- simulations. The same tables were produced for each significance test. Significance tests were weighted to an alpha level of .05. If the p-value resulting from each one-tail t-test was lower than .05, we rejected the null-hypothesis and concluded that there is a significant difference between the data.

Table 1*Example Significance Test (Change in Empathy): t-Test: Paired Two Sample for Means*

	<i>Rate of Empathy (Post)</i>	<i>Rate of Empathy (Pre)</i>
Mean	0.825597	0.632339
Variance	0.009276	0.053198
Observations	7	7
Pearson Correlation	-0.10361	
Hypothesized Mean Difference	0	
df	6	
t Stat	1.974238	
P(T<=t) one-tail	0.047893	
t Critical one-tail	1.94318	
P(T<=t) two-tail	0.095786	
t Critical two-tail	2.446912	

Improvements in Empathy

To analyze whether empathy improved between pre- and post- measures, we first determined whether responses to empathic opportunities in both the patient simulation and survey demonstrated successful empathy or failed to demonstrate empathy. The fellow's response to a patient's empathic opportunities was considered successfully empathic if at least one NURSE behavior was present in the response. If the fellow's response to the patient's empathic opportunity did not contain any NURSE behavior, the response is determined to be "not empathic" and therefore, a failure. For example, in response to the patient statement "My family needs me. I want to be there for them" (uttered by the patient in the first patient simulation), one fellow asked medical questions about the patient's symptoms. This response failed to meet criteria of an empathic response as it did not contain any NURSE behaviors and instead resorted to a biomedical

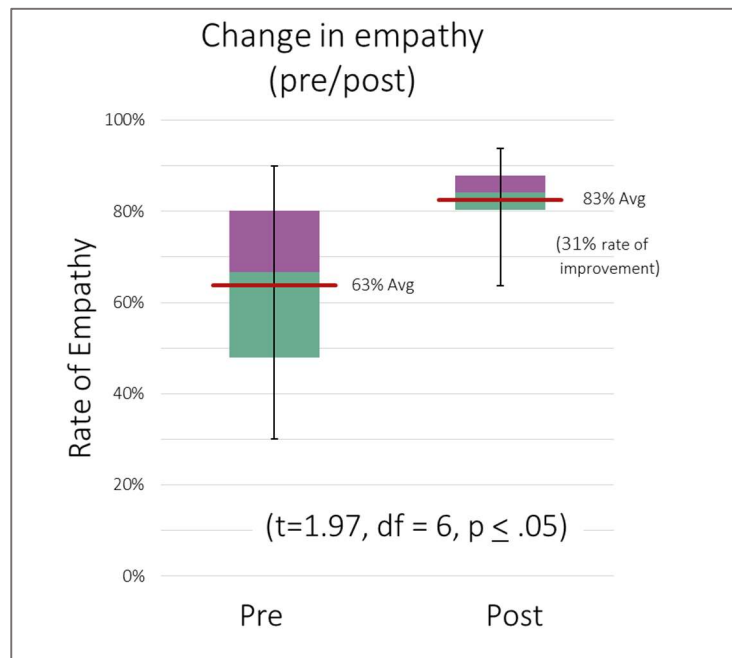
stance. To a similar patient statement, another fellow responded with, “You feel the need to be strong for them.” This response contains a NURSE behavior, Understanding, and was therefore coded as a successful empathic response. The fellow’s rate of successful empathic responses to the patient’s empathic opportunities throughout the duration of the patient simulation is understood as the “rate of empathy.” The rate of empathy was calculated by dividing the number of successful empathic responses to emotional opportunities into the total number of empathic opportunities presented by the patient. We then determined whether there was a significant change in the fellow’s empathy by comparing the rates of empathy between pre- and post- simulations.

Table 2 includes a summary of data analysis used to evaluate each individual fellow’s (2-8) empathic responding ability and evaluate the combined average of all fellows’ overall performance. In addition to showing the rate of empathy, Table 2 includes the number emotional opportunities uttered by the patient and includes a breakdown of all NURSE behaviors, which are directly tied to empathic success. When determining the rates of change of each variable between pre- and post- measures, overall average scores were calculated to give every subject equal weighting (regardless of the number of empathic opportunities they were presented with in the simulation). Overall, the intervention had a significant effect on the fellow’s rate of empathy, $t(6) = 1.97$, $p = .048$; the rate of empathy improved from a success rate of .662 (or 66.2%) to a success rate of .826 (or 82.6%) between pre- and post- measures (a change of .193). The overall improvement in empathy is visualized in the comparison of pre- and post- box plots in Figure 5. In addition to an improvement of the average rate of empathy after the

intervention, the variability between fellows' performance decreased—the range in rates of empathy between highest and lowest performing fellows decreased by 50% from a range of .6 to a range of .3

Figure 5

Change in Rate and Variability of Successful Empathic Responses



Note. The rate of empathy is a measure of the rate of successful empathic responses to patient empathic opportunities. The rate of empathy between pre-intervention and post-intervention trials increased whereas variability between participants' empathy decreased. The average values are represented by the red line. The lower quartiles of performance are shown in teal, and the upper quartiles in purple. The variability between trials is shown by the range of values covered by the "whiskers" in the plot. There was a significant impact on the rate of empathy between trials, $t(6) = 1.97$, $p = .048$.

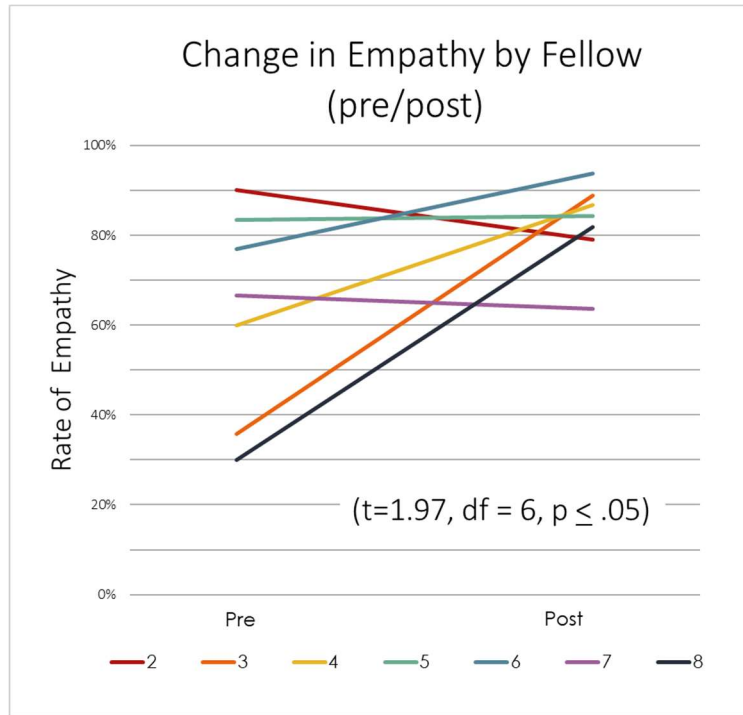
A closer view of the changes in overall empathic responding performance and their statistical significance is shown in Table 3. As previously noted, the rate of empathy increased by .193, or 19.3%, between pre- and post- interactions. In keeping with this result, the rate of failed responses to empathic opportunities (the rate of opportunities that were *not* met with any NURSE behaviors) decreased by .193 between pre- and post-simulations. This difference in rate shows a 30.6% improvement in fellows' empathic responding performance between the two trials. This rate of change was calculated as the average change (here, .193) divided by the average rate in the pre-trial (here, .622).

In addition to the improvements in the overall rate of empathy, there was a statistically significant increase in the number of NURSE behaviors (that comprise the empathic responses) that the fellows displayed throughout the simulation, $t(6) = 6.96$, $p = .0002$. On average, the fellows used 11 more NURSE behaviors in their responses to the patient's empathic opportunities after being exposed to the Guide and Workshop. This increase is equivalent to a 119% improvement (from an average of 9 total NURSE behaviors to over 20 total NURSE behaviors per fellow) between trials. Trends of specific NURSE behaviors will be discussed in the following section.

To determine if a specific fellow's performance was driving the changes in empathy, we looked at the change in empathic responding displayed by each individual fellow. The line graph in Figure 6, like Figure 5, represents rate of empathy trends between trials, but is broken down to show the specific performance of each fellow. Fellows 3 & 8 displayed the lowest rate of empathy prior to the intervention and showed the most improvement in empathy between pre- and post- trials.

Figure 6

Change in Rate of Empathic Responses to Opportunity by Fellow



Note. Figure 6 shows the changes in the rate of successful empathy per fellow. The rate of empathy is a measure of the rate of successful empathic responses to patient empathic opportunities. Each fellow is represented by a line and the slope of the line connected pre- and post- empathic performance provides a visual of each fellow's rate of change – the steeper the line, the more change. Fellow 3 (shown in orange) and 8 (shown in navy) showed the lowest overall performance in the pre-intervention simulation and showed the highest gain (represented by the slope of the line) between simulations. The average rate of empathy in the pre-simulation was 63% and increased to 83% in the post-simulation. The fellows had an overall 31% rate of improvement.

Table 2

Summary of Empathy in Patient Simulations

Fellow	Number of empathic opportunities		Rate of successful empathy		Sum of all NURSE behaviors		N (rate)		U (rate)		R (rate)		S (rate)		E (rate)		# of NURSE behaviors per a successful response	
	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post
Per subject																		
2	10	19	0.90	0.79	14	21	0.40	0.16	0.70	0.32	0.10	0.26	0.10	0.11	0.10	0.26	1.56	1.40
3	14	18	0.36	0.89	5	22	0.00	0.22	0.14	0.50	0.07	0.06	0.00	0.06	0.14	0.39	1.00	1.38
4	10	15	0.60	0.87	7	20	0.10	0.13	0.20	0.47	0.30	0.33	0.00	0.20	0.10	0.20	1.17	1.54
5	12	19	0.83	0.84	14	27	0.08	0.16	0.17	0.47	0.25	0.26	0.33	0.11	0.33	0.42	1.40	1.69
6	13	16	0.77	0.94	13	24	0.08	0.25	0.38	0.63	0.31	0.19	0.00	0.13	0.23	0.31	1.30	1.60
7	9	11	0.67	0.64	7	12	0.00	0.27	0.22	0.36	0.33	0.09	0.22	0.18	0.00	0.18	1.17	1.71
8	10	11	0.30	0.82	3	12	0.10	0.18	0.10	0.36	0.00	0.09	0.00	0.09	0.10	0.36	1.00	1.33
Across participants																		
Sum	78	109			63	138												
Average	11.1	15.6	.632	.826	9	19.7	0.11	0.20	0.27	0.44	0.19	0.18	0.09	0.12	0.14	0.30	1.23	1.52
Average change ^a	4		19.33%		11		0.09		0.17		-0.01		0.03		0.16		0.29	
Rate of change ^b	39.7%		30.6%		119.05%		81.0%		62.2%		-5.7%		31.8%		112%		24%	

- a. Average change is calculated as the post-average minus the pre-average
- b. The Rate of change is calculated as the average change over the pre-average

Table 3*Change in Empathy in Patient Simulations*

Fellow	Number of empathic opportunities		Rate of Successful Empathy		Sum of all NURSE behaviors	
	Pre	Post	Pre	Post	Pre	Post
2 ^a	10	19	0.90	0.79	14	21
3	14	18	0.36	0.89	5	22
4	10	15	0.60	0.87	7	20
5	12	19	0.83	0.84	14	27
6	13	16	0.77	0.94	13	24
7	9	11	0.67	0.64	7	12
8	10	11	0.30	0.82	3	12
Across participants						
Sum	78	109			63	138
Average	11.14	15.57	.63	.83	9	20
Average change (pre to post)		4.4		.193		11
Rate of change (post/pre)		39.7%		30.6%		119.05%
Statistical Significance						
t Stat		4.15		1.97		6.96
p-value (one-tail)		0.00299		0.04789		0.00022

33

a. Subject 1 did not complete a pre-intervention simulation activity.

Table 4*Components and Complexity of Empathy in Patient Simulations*

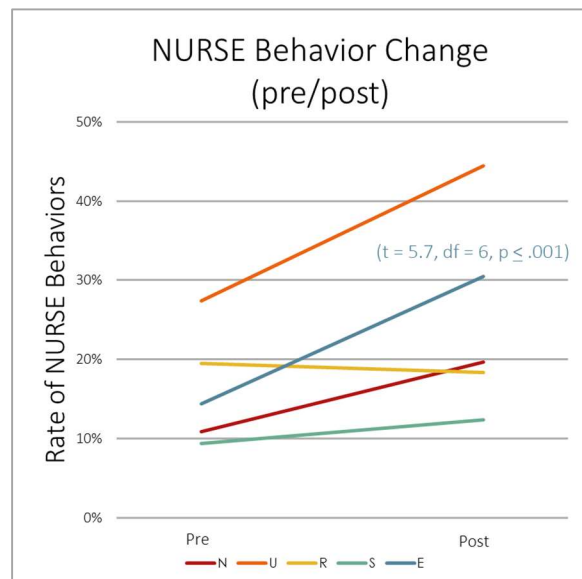
Fellow	N (rate)		U (rate)		R (rate)		S (rate)		E (rate)		# of NURSE behaviors per a successful response	
	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post
	Per subject											
2	0.40	0.16	0.70	0.32	0.10	0.26	0.10	0.11	0.10	0.26	1.56	1.40
3	0.00	0.22	0.14	0.50	0.07	0.06	0.00	0.06	0.14	0.39	1.00	1.38
4	0.10	0.13	0.20	0.47	0.30	0.33	0.00	0.20	0.10	0.20	1.17	1.54
5	0.08	0.16	0.17	0.47	0.25	0.26	0.33	0.11	0.33	0.42	1.40	1.69
6	0.08	0.25	0.38	0.63	0.31	0.19	0.00	0.13	0.23	0.31	1.30	1.60
7	0.00	0.27	0.22	0.36	0.33	0.09	0.22	0.18	0.00	0.18	1.17	1.71
8	0.10	0.18	0.10	0.36	0.00	0.09	0.00	0.09	0.10	0.36	1.00	1.33
	Across participants											
Average	0.11	0.20	0.27	0.44	0.19	0.18	0.09	0.12	0.14	0.30	1.23	1.52
Average change	0.09		0.17		-0.01		0.03		0.16		0.29	
Rate of change	81.0%		62.2%		-5.7%		31.8%		112%		24%	
	Statistical Significance											
t Stat	1.38		1.78		-0.22		0.57		5.68		3.60	
p-value (one-tail)	0.10897		0.06277		0.41704		0.29472		0.00064		0.00569	

Change in the Components of Empathy

Taking a wide view of empathic behaviors throughout and between the sessions provides insight into the specific empathic behaviors that the Guide and Workshop foster, and also provides insight into the behaviors that each individual fellow excelled at or relied on to convey empathy to their patient. Table 4 and Figures 7 & 8 summarize the rates of the five NURSE behaviors (Naming the emotion, showing Understanding, showing Respect, showing Support, using Exploration to learn more) between the pre- and post- simulations. The rate of each NURSE behavior is the number of each behavior per empathic opportunity.

Figure 7

Average Change in Rate of NURSE Responses (Overall, Simulation)



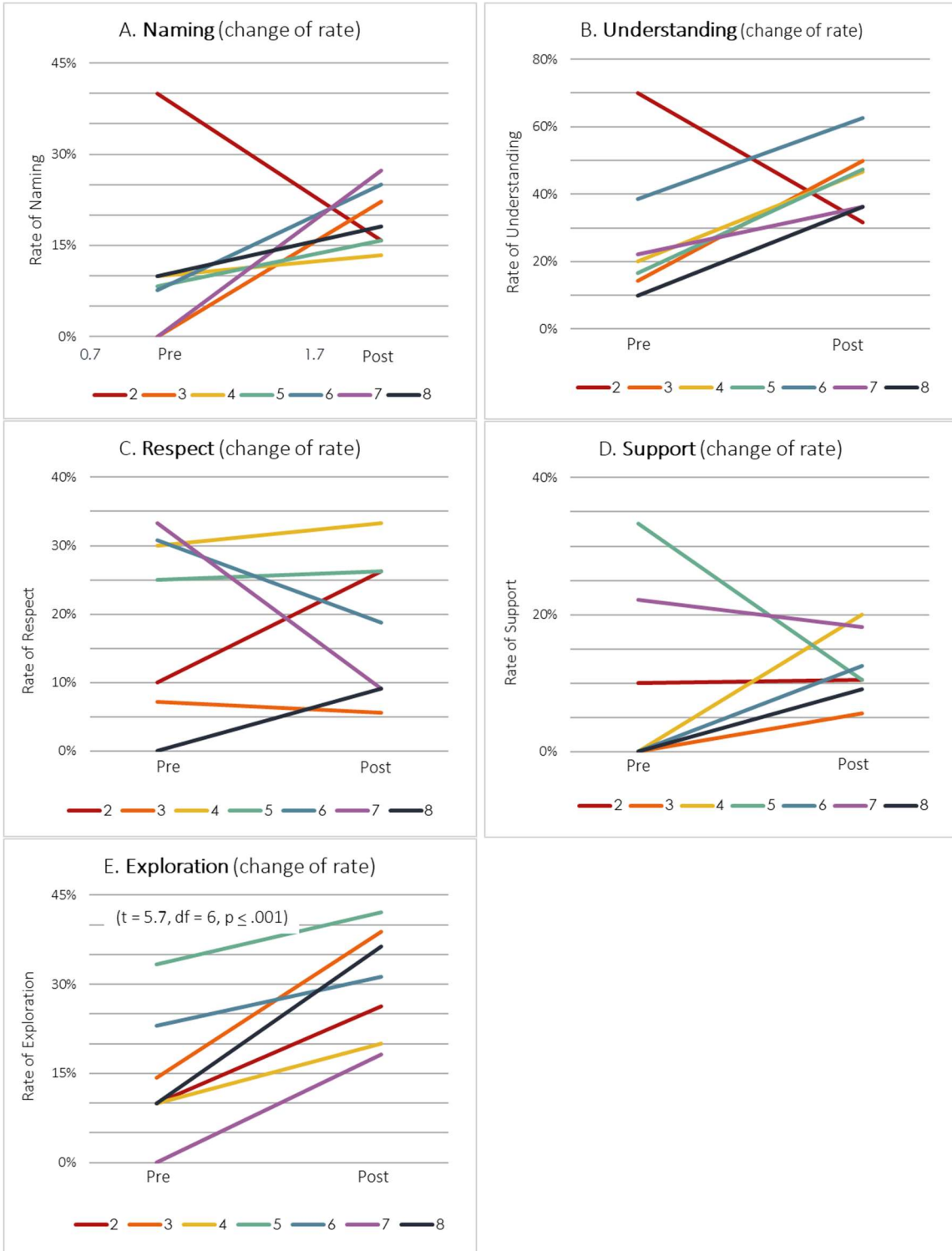
Note. The rate of each NURSE behavior is measured as the number of each behavior count divided by the number of empathic opportunities in the session. There was a significant difference in the rate of change between pre- and post- trials for only one of the NURSE behaviors, Exploration, $t(6) = 5.7$, $p = .0007$.

Figure 7 displays the behaviors that drive the overall change in fellows' rate of empathy between sessions. For example, in both simulations, fellows on average used the NURSE behavior, Understanding, at the highest rate in response to empathic opportunities. Moreover, the rate of change of understanding increased substantially. In the pre-simulation, fellows utilized Understanding at an average rate of .27, and at an average rate of .44 in the post simulation. This 62.2% improvement between sessions was not found to be significant, $t(6) = 1.78$, $p = .063$. The NURSE behavior, Exploration, also increased substantially between pre- and post-trials. The 112% improvement in the use of Exploration between trials, was statistically significant, $t(6) = 5.68$, $p = .0006$. These behaviors showed the largest change of rate between trials and may be driving the overall rate of change in empathy. The remaining NURSE behaviors—Naming, Respect, and Support—only showed slight overall average changes among fellows that were not significant. In order to visualize the individual fellow's trends in NURSE behaviors that may be driving the overall trends, a set of plots, Figure 8 (A-E), displays each NURSE behavior broken out by fellow.

The variability of fellows' performance of each individual NURSE behavior is clearly shown in these plots. In Figure 8A and 8B, representing Naming and Understanding, all but one physician improves. The decline shown by Fellow 2, likely contributed to the variance lack of significance in these behaviors. In Figure 8E, representing Exploration, all fellows improve between pre- and post- simulations. This consistency may explain why the differences between pre- and post- rates of Exploration is significant. In Figures 8C and 8D, representing Respect and Support, it is more difficult to identify trends as there is less consistency of change between physicians.

Figure 8 (A-E)

Change in Rate of NURSE Behaviors Broken Down by Behavior

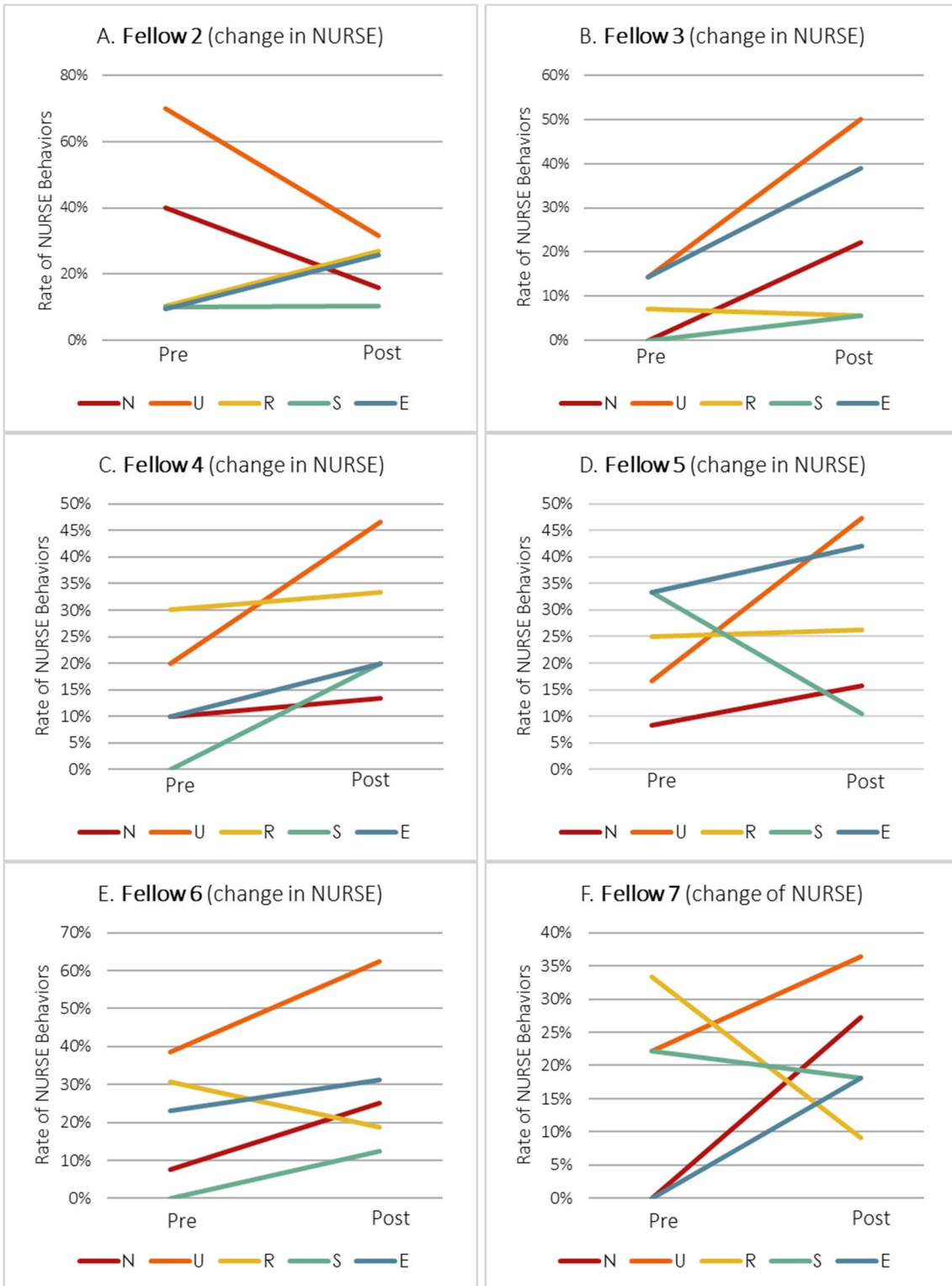


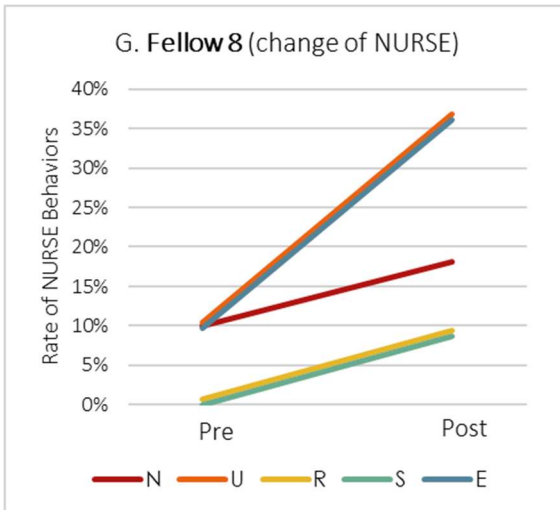
In order to better understand what drives trends in the rate of each NURSE behavior, what behaviors are most utilized, and the well-roundedness of responding, the behaviors are shown for each fellow in Figure 9 (A-G). In this set of plots, if one of the NURSE behaviors is exhibited at a higher rate than the others, then it is inferred that the fellow is most skilled at displaying that specific behavior in responses to patients, and that this behavior is driving their overall rate of empathy. For instance, in the pre-simulation activity, Fellow 6 exhibited the NURSE behavior, Understanding at the highest rate (38%) in their responses to the patient (Figure 9E). This same fellow exhibited the other four NURSE behaviors to a lesser degree (0-30%) in their responses to the patient. As such, when Fellow 6 demonstrated a successful empathic response to the patient, it was most likely driven by their strongest empathic skill, Understanding.

Specific skill utilization also relates to well-roundedness. If the fellow largely relied on one or two NURSE behaviors to show empathy, it is inferred that this fellow displayed less well-rounded empathy than a fellow who utilized all five NURSE behaviors at a similar extent to show empathy (regardless of overall success rate). Further, the relative changes in the rates of NURSE behaviors exhibited by a fellow between pre- and post-simulations may represent changes in well-roundedness. For example, Fellow 2 utilized two NURSE behaviors, Naming and Understanding, almost exclusively in the pre-simulation (Figure 9A). In the post-simulation exercise, Fellow 2 exhibited these same two behaviors at a much lower rate but showed an increase in exhibiting the NURSE behaviors Respect and Exploration in responses to the patient. This fellow's responses became more well-rounded even though their overall rate of empathy decreased slightly between trials.

Figure 9 (A-G)

Change in Rate of NURSE Behaviors by Fellow (Continued on next page).





Note: The rate of NURSE behaviors is the number of each behavior per opportunity. The rates of change on the Y axes of the plots here are not consistent among fellows due to the differences in individual variability. Each plot (A-G) shows the change in rate of NURSE behaviors for each fellow.

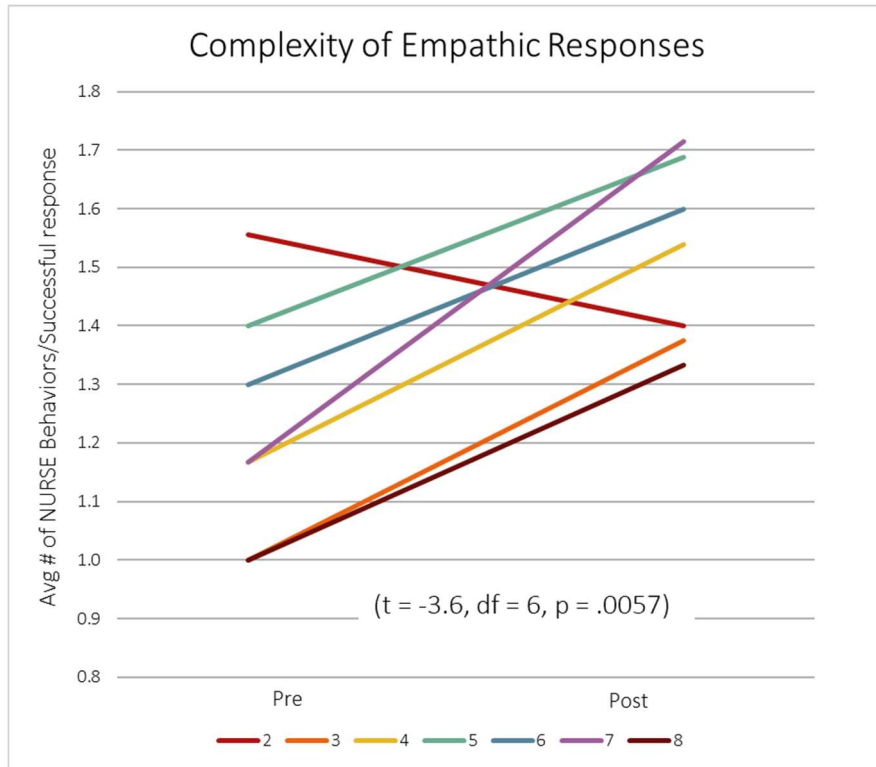
A similar trend to Fellow 2 is seen in Fellow 7's performance (Figure 9F). In the first patient simulation, this fellow relied on the NURSE behavior, Respect, far and above the remaining NURSE behaviors. In the second patient simulation there is a marked shift in the fellow's behavior: the rate of Respect became the lowest utilized skill while the behaviors Understanding, Naming, and Exploration trended upwards. These trends in behavior change demonstrate that the fellow showed an improvement in their well-roundedness of empathic communication. Despite showing a decrease in previously strong skills, they increased their variation of NURSE responses after the intervention.

Change in the Complexity of Empathic Responses

In order to provide a more nuanced understanding of the fellows' empathic responding ability, we analyzed the complexity of the fellows' empathic responses. A successful empathic response was considered more complex if the response contained two or more NURSE behaviors. For example, in the post-simulation exercise, the patient stated, "I've always been the strong one. I don't want my children to remember what I will become" and in response, a fellow asked, "How do you want them to remember you?" Though this response is considered a successful empathic response, it only represents one NURSE behavior (Exploration), so is not considered complex. In response to a similar patient statement, another fellow responded with, "Everyone does this for the first time, this is very hard, but you've demonstrated your own strength before, and will do so in this, too." This response contains multiple NURSE behaviors (Understanding and Respect), so is considered more complex compared to the previous example. Moreover, the response would be considered even more complex if the remaining three NURSE behaviors were present. As shown in Table 4 and Figure 10, six of the seven fellows displayed an increase in the complexity of their empathic responses after exposure to the Guide. On average, the number of NURSE behaviors per successful empathic response increased significantly, $t(6) = 3.6$, $p = .006$, from 1.2 in the pre-trial to 1.52 in the post-trials. This average increase of .29 NURSE behaviors represents a 24% improvement (rate of change) of complexity after exposure to the intervention.

Figure 10

Complexity of Empathic Responses per Opportunity



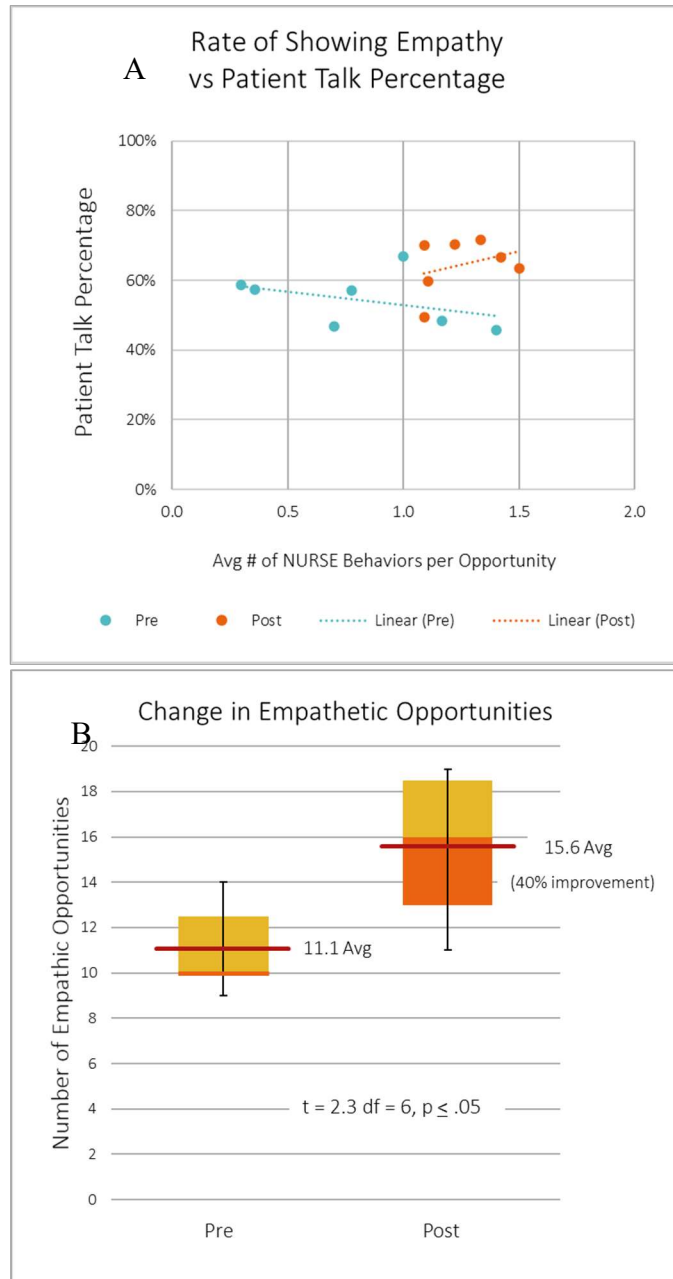
Note. Complexity was determined by the number of NURSE behaviors present in each successful empathic response. If the fellow used multiple NURSE responses in one empathic response, it was considered a more complex response.

Empathy and the Patient

The analysis of data from patient simulations looked at indicators of the patient’s behavior. These indicators include the patient’s talk time during the simulation and the number of empathic opportunities expressed by the patient. All pre- and post- simulations lasted between 14-16 minutes by design. To calculate the percentage of patient talk time, we divided patient talk time by the total simulation time for each simulation. Figure 11 displays patient talk time and the average number of NURSE behaviors per opportunity (complexity) in the session.

Figure 11 (A&B)

Patient Behavior and Empathy



Note. Figure 11A shows that patient talk time increased between sessions and trended with empathy and the complexity of empathy. In the pre-simulation, patient talk time declined as empathy increased. In the post-simulation, patient talk time increased with empathy. Figure 11B displays the change in empathetic opportunities provided by the patient. The patient demonstrated significantly more empathetic opportunities in the post-simulation than in the pre-simulation, $t(6) = 2.3$, $p = .003$.

Represented in blue in Figure 11A, there was a larger range of empathic behaviors in the pre- simulation session (as discussed in previous graphs) than in the post- simulation session (represented in orange). The range of pre- simulation patient talk time seemed to trend downwards with more empathy (i.e., more empathy correlated with less patient talk time). In the post- session, patient talk time took on an opposite trend— empathy correlated positively with patient talk time. Here, when the doctor provided more complex empathy, the patient’s talk time increased. Moreover, across all fellows, the patient uttered an average of 4.4 more empathic opportunities that the fellow could respond to in the post-intervention patient simulation. These opportunities represent a significant, 40% increase in the number of opportunities, $t(6) = 4.15$, $p = .003$.

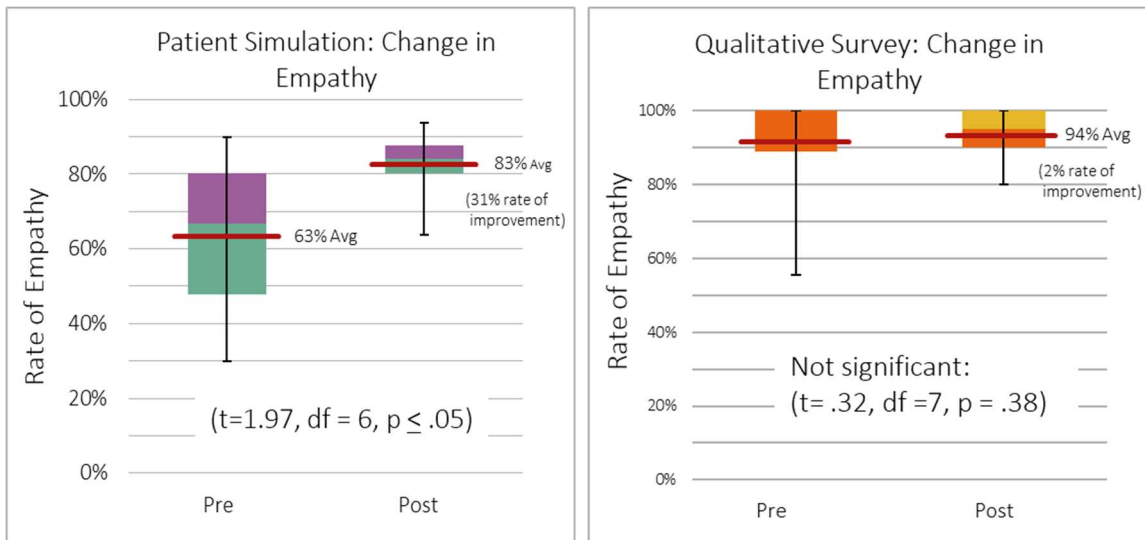
Gauging Concurrent Validity of Measures

Comparing Simulation and Survey Data

The improvements in the fellows’ empathy in patient simulations were also reflected in data from the qualitative empathic responding survey (Figure 12; Table 5). However, although the variability (range) in ability between fellows decreases in the survey responses, just as in the simulation, the difference between pre- and post- empathy in the survey measure was not significant, $t(7) = .32$, $p = .38$. In the pre-survey responses fellows demonstrated more than a 90% rate of empathy, on average, even before the intervention. Fellows had less room to improve on the survey than in simulations, where fellows missed 30% more empathic opportunities on average, prior to the intervention.

Figure 12

Simulation and Survey Comparison: Change in Rate of Empathy



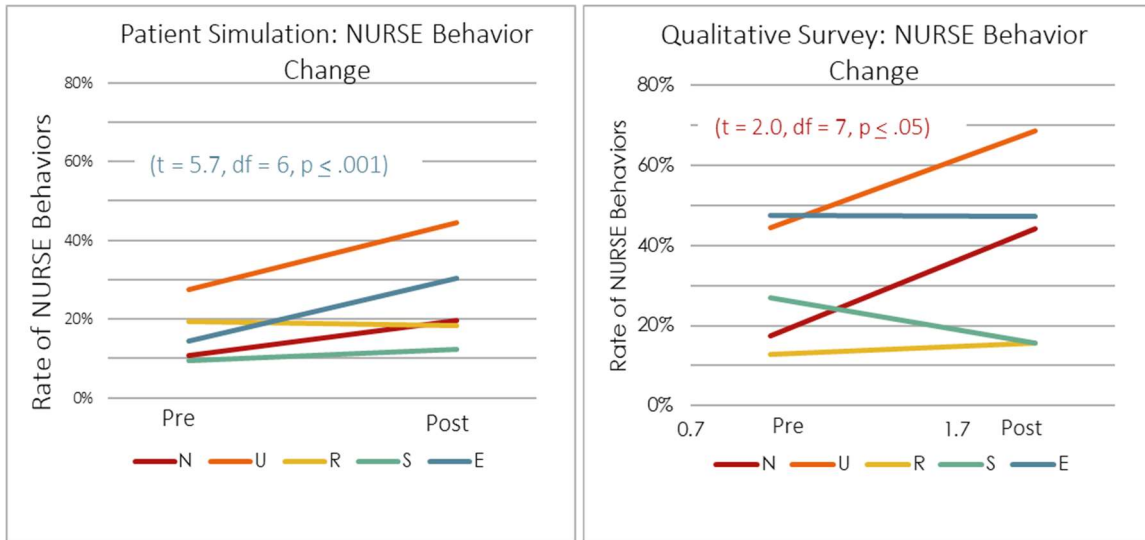
The change in the rate of NURSE behaviors in the survey data mirrors the changes seen in the patient simulation (Figure 13). Parallel to the patient simulation data, the NURSE behaviors Understanding and Naming increased between trials, and Understanding was the most utilized in the post- trial. Further, the lack of change in the behaviors Respect and Support also trends with simulation data. The change in the behavior Exploration was not parallel between methods. Exploration is the only behavior to have a significant increase in the simulation data, but this same behavior showed no change between pre- and post- surveys. On the other hand, after the intervention, there was a significant increase in the NURSE behavior, Naming, in the survey data, $t(7) = 2.0$, $p = .04$, but was not significant in simulation data.

Table 5*Summary of Empathy in Empathic Responding Survey*

Subject	Empathy success rate		N (rate)		U (rate)		R (rate)		S (rate)		E (rate)		Average number of NURSE behaviors per a successful empathic response		
	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post	
Per subject															
1	1.00	1.00	0.11	0.40	0.33	0.90	0.00	0.30	0.44	0.30	0.78	0.2	1.67	2.10	
2	1.00	1.00	0.67	0.60	0.33	0.40	0.00	0.20	0.33	0.30	0.44	0.70	1.78	2.20	
3	0.89	0.80	0.11	0.30	0.56	0.60	0.00	0.00	0.11	0.00	0.44	0.50	1.38	1.75	
4	0.89	1.00	0.11	0.50	0.33	0.70	0.11	0.20	0.56	0.10	0.22	0.40	1.50	1.90	
5	1.00	0.90	0.00	0.50	0.67	0.80	0.33	0.20	0.22	0.40	0.78	0.60	2.00	2.78	
6	1.00	0.90	0.22	0.60	0.78	0.60	0.33	0.10	0.11	0.00	0.33	0.40	1.67	1.89	
7	1.00	0.90	0.33	0.00	0.89	0.40	0.00	0.00	0.00	0.20	0.56	0.40	1.78	1.11	
8	0.56	1.00	0.00	0.20	0.11	0.80	0.11	0.10	0.11	0.00	0.33	0.50	1.20	1.60	
Across participants															
Average	0.92	0.94	0.19	0.39	0.50	0.65	0.11	0.14	0.24	0.16	0.49	0.46	1.60	1.90	
Average change		0.02		0.20		0.15		0.03		0.08		0.03		0.30	
Rate of change		2.2%		105.0%		30.0%		27.3%		33.3%		6.1%		19%	
Statistical Significance															
t Stat	0.32		2.00		1.1		0.44		1.01		0.25				
p-value (one-tail)	0.38		0.04		0.15		0.34		0.17		0.41				

Figure 13

Simulation and Survey Comparison: Change in Rate of NURSE Responses



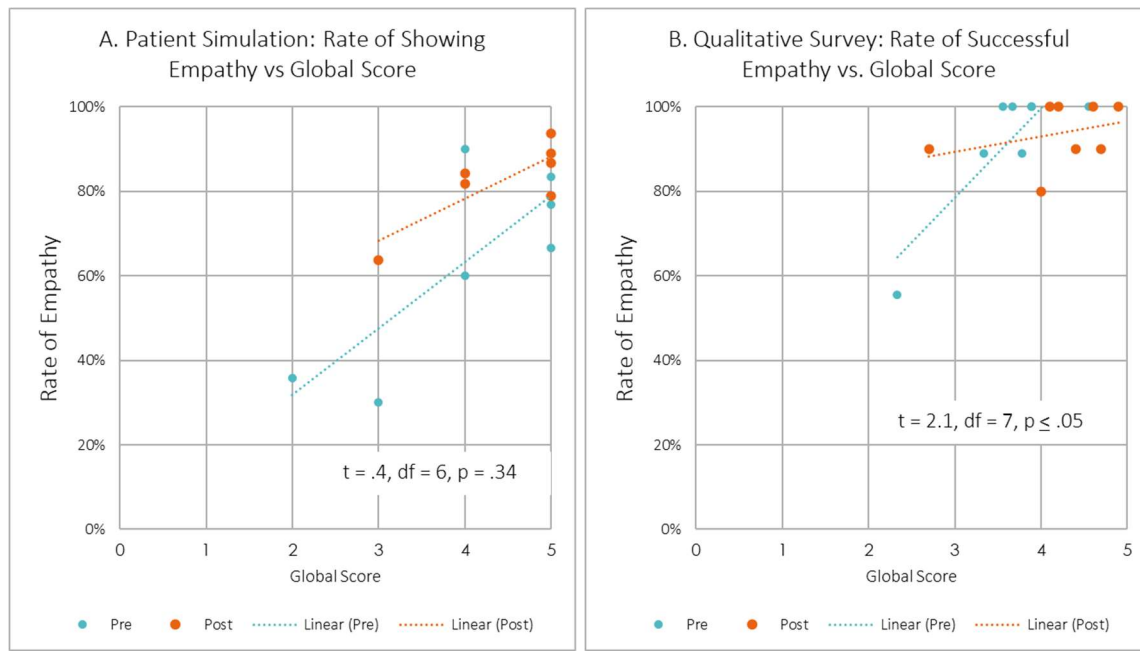
Note. All eight fellows completed both surveys, but only seven completed both simulations. This explains the difference in degrees of freedom in these analyses.

Comparing NURSE and MITI Global Empathy Scores

The NURSE framework for empathy has been established in a few heavily cited journal articles on empathy in medicine but is not considered an evidence-based tool (Morse et al., 2008; Pollak et al., 2006). In addition to comparing the survey and simulation data that was evaluated using the NURSE framework, the present thesis sought to compare the NURSE method to a validated tool for quantifying communication and empathy. The 5-point MITI global Empathy rating scale, which is an established, evidence-based method for measuring empathy within the Motivational Interviewing framework, was utilized to double code both the survey and simulation data (Moyers, Manuel, & Ernst, 2014).

Figure 14 (A-B)

Rate of Empathy Compared to MITI Global Empathy Scores



Note: According to the MITI’s creators, the MITI scale is not meant to capture the full range of possible empathic behavior. Theoretically, an individual could perform far and above the highpoint, but it would not register on the 5-point scale.

As seen in Figures 14A and 14B, global Empathy scores trended with the rate of empathic responding behavior in both the survey and simulation analysis. This suggests that the NURSE method and MITI global Empathy scale are measuring similar underlying components of empathy, helping to point to concurrent validity of the NURSE methodology.

CHAPTER 5

DISCUSSION

The purpose of this thesis project has been to design, develop, and test an empathic responding educational program and answer the question: Is the empathic responding guide an effective empathy training tool for physicians? Specifically, we sought to find out if the Guide and Workshop would result in improvements in fellows' empathic responding skill in patient simulations and empathic responding surveys. We addressed this question by analyzing the differences in the rates of empathy (and its component NURSE behaviors) before and after a pilot group of fellows were exposed to the intervention. In addition, we used the pre- and post- data on fellows' performance of NURSE behaviors in patient simulations to explore the well-roundedness and the complexity of the fellows' empathy. Lastly, in order to shed light onto the effects of the fellows' empathic communication on the patient, we compared patient-talk time and the change in number of empathic opportunities uttered by the patient to the fellows' empathic performance.

The secondary aim of this project was to pilot the qualitative empathic responding survey method and to verify the validity of using the NURSE evaluation method to assess empathy in both survey and simulation data. Specifically, we sought to provide an indicator of concurrent validity between these measures by evaluating whether observed changes in fellows' empathic responses in patient simulations correlate with similar observations in empathic responding surveys, and in another evidence-based rating, the MITI global Empathy rating scale.

Limitations

Defining and Measuring Empathy

Empathy is an amorphous term that is challenging to define. There is lack of consensus in the literature of what empathy is and what specific behaviors contribute to empathic practice. As such, the measures we used in the present study are, at best, approximations of empathy. As mentioned in the description of methods, some components of high-quality empathic communication, such as using silence in a therapeutic manner, were not evaluated in this thesis, thus missing an important aspect of authentic, quality care. Moreover, the complexity of an empathic response does not necessarily correlate with the effectiveness of the response in a real clinic encounter. Just as silence can speak volumes in a clinic, brevity can be healing, too. Using a simple empathic response may hold more space for the patient's own processing. As such, being overly verbose, while more complex, may detract from the relationship between doctor and patient depending on the situation or patient. Empathic phrases are only part of the art of empathy, and empathy is only part of the art of medicine. The data collection and analysis in this thesis was limited in its ability to capture this art. Nevertheless, the approach here has been to recognize the need of many providers for the basic elements that can help them mature into art of expressing empathy.

In part due to the difficulty defining and measuring empathy, our empathic evaluation measures lack objectivity. Qualitative evaluation in this thesis has required a subjective determination of the presence of empathy or of specific NURSE behaviors. As a result, the measures of empathy used in this analysis may lack reliability. Although using established evaluation measures as a comparison is meant to help resolve this issue,

it is difficult to establish concurrent validity between the NURSE and MITI coding methods used in this thesis because of the subjectivity present in both methods. These issues are compounded because our analysis was conducted by a single coder, and as such, the study lacks interrater reliability. Overall, it is difficult to equate empathy with the trends of performance reported on in this thesis, so our results must be interpreted with these caveats in mind.

Limits to Generalizability

The present study has several limitations concerning generalizability. First, the fellows who took part in this study represent a very small convenience sample. The pilot data, though promising, is therefore not generalizable to the overall population of medical trainees. In order to help support the generalizability of the results of this study, we would need to complete further testing with more trainees. Moreover, our small data set makes it difficult to establish concurrent validity between the two data collection measures used in the present study (the simulation and survey). In order to better establish how the results of the simulation and survey methods correlate with one another, it would be necessary to conduct further research utilizing both survey and simulation measures.

In addition, the present study is focused only on palliative care fellows. Due to the nature of palliative medicine, these fellows may have a propensity for and experience with dealing with difficult emotions (i.e., those that arise when patients experience extreme, unmanaged pain, death, and grief) so may already possess more empathic skill than the average medical provider. In general, these palliative fellows displayed great empathic skill both before and after the intervention. This baseline skill may have

affected the impact of the intervention and contributed to ceiling effects observed in the data. Even before the Guide and Workshop, fellows missed five times fewer empathic opportunities on average than the physicians studied in the Morse paper that served as the inspiration for the present project (Morse et al., 2008). This suggests that the fellows in the present study began with better empathic ability than the physicians studied in Morse's research. In addition, the fellows demonstrated a 90% success rate of empathy in their survey responses even before exposure to the Guide and Workshop intervention. If the fellows are already empathic, they will have less room to improve with our Guide. On top of this, the fellows were aware that their empathic communication skills were being evaluated in the simulation and survey responses. Even for these fellows, the findings may not generalize to their clinical practice with real patients, where any observer effects would be eliminated. In short, further research would be necessary to determine the generalizability of the trends in empathy observed in this thesis to other medical disciplines.

Lastly, it is difficult to isolate which components of the Guide and evaluation are changing behavior. The empathic responding guide, the accompanying workshop, and patient simulations may have all contributed to the observed changes in fellows' empathic skill. Moreover, the intervention described in this thesis took place early in participants' fellowships at MD Anderson. The experience with real palliative patients the fellows gained over the duration of study as part of their fellowships may have contributed to improvements in empathy. It is difficult to determine the extent to which the observed changes in empathy are due to the efficacy of the Guide.

Findings

Improvements in Overall Empathy

Fellows' overall empathy improved after exposure to the Guide and Workshop. They missed significantly fewer empathic opportunities, and their empathic responses to these opportunities became more complex and well-rounded. Exploration seemed to be the NURSE behavior specifically responsible for driving the overall improvements in fellow's empathy. Exploration was the only NURSE behavior that every fellow displayed improvement on and that showed statistically significant changes between trials. Moreover, on average, fellows displayed the most improvement in the NURSE behaviors Exploration and Understanding, suggesting either that the Guide supported these skills better than others or that these skills are easier to learn than others. The trends in each individual NURSE behavior suggest that the Guide and Workshop may be further developed to support the behaviors that did not show as much improvement, namely showing Respect and Support.

The fellows used more of the five NURSE behaviors in the post-simulation than in the pre-simulation. That is, all fellows began demonstrating more well-rounded empathic responding skill after exposure to the Guide (Figure 9). Importantly, there was considerable variability in each fellow's performance. Some fellows (Fellows 3 & 8) began using all NURSE skills to a higher degree in the post-simulation, showing an improvement in overall skill and well-roundedness (Figure 9B,G). It was also observed that the fellows can decline in certain behaviors but simultaneously improve in others. For instance, Fellow 7 displayed a reduced rate of exhibiting Respect but considerable improvements to Naming, Understanding, and Exploration (Figure 9F). Individuals

following this pattern seem to be exhibiting more well-roundedness in spite of the decline in some areas. It is possible that they are applying greater effort toward becoming a more well-rounded communicator rather than toward the skills they were already advanced at, though this is a speculation. Although, due to small sample, these variations seem to skew overall data and decrease significance, the improvements in well-roundedness seen in all fellows is a promising sign for sustained improvements over time. As fellows practice, they can improve in all areas to become even better physicians.

Improvements in the Complexity of Empathy

The fellows demonstrated a significant increase in the complexity of their empathic responses. The complexity of empathy, denoted by the number of NURSE behaviors present in each successful empathic response, may indicate the development of more refined empathic skill. After the learners becomes accustomed to using all NURSE behaviors, they can begin utilizing combinations to provide more nuanced responses. For the patient, this complexity may add to the feeling of authenticity of the responses. On the other hand, the complexity may indicate that the fellows are exerting extraordinary effort to show empathy, even to the point of awkwardness. A more nuanced and dynamic application of empathic skill may come later, after the fellow becomes more accustomed to balancing empathic phrases with other aspects of quality care. In either case, even if the fellow has a high rate of successful empathy in interactions with their patient, there may still be room to advance by working complexity to their responses. The Guide seems to promote the building of these more advanced skills in addition to individual empathic component behaviors.

Patient Behavior

In this study, there were noteworthy trends between patient talk time and fellows' expression of empathy. In the pre- simulation, when empathy increased, patient talk time decreased. It is possible that patient talk time decreased in response to empathy. If the patient did not feel heard by the doctor, they may have repeated their efforts to present empathic opportunities in hopes of receiving empathic feedback. In effect, not demonstrating empathy led to a prolonged session. This phenomenon may have been due to a feedback loop in the pre-simulation: When the doctor was not using empathy, the patient would feel unheard so would try to express his emotion again and again.

However, in the post-simulation, empathy was correlated with more elaboration by the patient (increased patient talk time). This finding is consistent with the significant increase of fellows' utilizing Exploration in their responses. Exploration encourages the patient to express need or emotion. The effect of the fellows' increased use of Exploration is observed in the 40% increase in the number of empathic opportunities the patient uttered between pre- and post- trials (Table 2). The expansive quality of Exploration may explain the opposite trends in patient talk time seen between sessions. This also provides a new perspective about the relationship of patient talk time and empathy. Empathy (and especially Exploration) seems to provide a positive feedback loop in the clinic encounter: empathy leads to more empathic opportunities which leads to more empathy, and so on.

Inspired by Missed Opportunities

The creation of the Guide and the present pilot study was in part inspired by the findings on physician empathy described by Morse et al., in 2008. Compared to their

discovery that physicians missed 90% of empathic opportunities, the fellows in this study demonstrated more empathic skill from the beginning. Even prior to the intervention, the fellows missed fewer than 40% of empathic opportunities. The difference between the fellows in the present study and the physicians in Morse's study is notable and may be due to the fellows' involvement in the field of palliative medicine, which requires physicians to encounter difficult patient emotions. Palliative clinicians, including the fellows, may already be better prepared to communicate with empathy to their patients, or they may have chosen palliative care in the first place because of their own natural empathic inclinations. Nevertheless, after exposure to the Guide and Workshop, fellows improved even more, missing less than 15% of empathic opportunities.

The fact that the fellows in this study, who already demonstrate empathic skill, showed further improvement after exposure to the intervention is encouraging. It suggests that the intervention may lead to marked improvements as well in physicians who are less skilled in empathic communication to begin with. This hypothesis is supported by the change in empathy displayed by Fellows 3 & 8 in the present study. The fellows had the most room to improve after the pre-intervention simulation (Figure 6). Fellows 3 & 8 started off with the lowest rate of empathy, both missing over 60% of empathic opportunities. However, these same fellows saw the most improvement in empathic responding skill between pre- and post- simulations, missing less than 20% of empathic opportunities after exposure to the guide and workshop. These findings suggest that the Guide may be widely applicable to medical practitioners, even those who do not have a propensity for empathy, like the palliative fellows.

Next Steps and Future Directions

Future directions include efforts to improve research on empathic education (i.e., to clarify the findings) and efforts to expand the reach of this education in order to improve patient care. The immediate next step is to determine whether the changes shown in this project are sustained with time. To do this, the same group of palliative care fellows will be recruited to participate in a third, final patient simulation. This new simulation data can be evaluated using the same methodology, and trends in empathic behavior, component behaviors, and complexity can be reviewed over the entire study to provide insight into possible lasting changes. After establishing whether the Guide can produce sustained change in learners, then the Guide should be tested with more physician learners.

Future trials can also attempt to break down the components of the Guide to isolate which components are driving the change seen in the present study. To further bolster results, change should be measured in real patient settings, if possible. Working with actual, rather than simulated patients, would eliminate some confounding variables. Moreover, this thesis included few indicators of the effects of empathy on the patient. Working in real clinic settings would provide better avenues for engaging the patient and measuring their perspective. These trials would help to determine generalizability of these findings and establish if the empathic responding guide on its own (without a workshop) can create an established change that actually benefits patients.

Though not robustly represented in the current small sample of fellows, potential trainees who may benefit from the Guide include medical learners of all types. The Guide can be tailored to any medical setting, for clinicians with any level of experience and with

any level of existing empathic ability. To provide the best representation of the effectiveness of the Guide, it is recommended that future iterations of evaluation use an experimental design with a varied panel of learners and include a control group of learners who do not receive the Guide. Running more trials on this research may also decrease variability seen in the pilot data, and therefore may improve the significance of changes in empathic ability. In addition, using both the survey and simulation measures in future trials will help to establish if there is concurrent validity between them.

Considering that the surveys are easier to implement than patient simulations, which requires substantial time and resources, establishing concurrent validity would enable further research to be conducted on a larger scale. Research should expand to include physicians of all disciplines and at varying levels of ability. Ideally, using learners of all kinds—from students at the University of Arizona College of Medicine and McGovern Medical School at the University of Texas Health Science Center at Houston (UTHealth), to MD Anderson medical residents and fellows in training, to experienced clinicians of all disciplines—will provide stronger evidence towards the effectiveness and generalizability of the Guide.

Currently, Dr. Epner and I are conducting field research to increase the generalizability of our Guide. We are in the process of interviewing dozens of physicians from many medical disciplines other than palliative care and are also interviewing many clinicians who work in the psychosocial domain, including social workers, psychologists, and chaplains. These interviews will help us to refine our understanding of what it means to practice empathically and will inform our development of more broadly applicable

educational resources. The ultimate goal is to publish the Guide to be available to all providers and all settings, so they too can improve empathic responding.

Implications for Social Work

The present thesis has wide implications for the field of medical social work. Social workers in hospitals and other healthcare settings are an integral part of providing holistic care to patients. The value of social work extends far beyond patient care: Social workers are trained in both micro practice (on the ground, client care) and macro practice (on the level of systems and policies). With the ability to apply a critical theory to their work, social workers are able to hold both micro- and macro- views and act as consultants in systems level changes (Salas, Sen, & Segal, 2010). They can support the healthcare team as they are making care decisions for a patient and can also contribute to systematic changes, specifically changes to the culture of medicine. When the project for creating the Guide was underway at MD Anderson, I shadowed and met with physicians who, recognizing that I was a social worker, began to ask for my input into how well they were doing on their empathy. The empathic responding guide may be an avenue to open the gates of communication between physician and social worker. With the rising consensus of the importance of interprofessional practice for patients, medical social workers are well positioned to use this guide as their own tool for supporting the physicians in their individual institutions as they face difficult encounters in patient care.

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APPENDIX A

SAMPLE SIMULATED PATIENT SCRIPT

Name: Brad Lewis
Age 45
Diagnosis: colon cancer

Prior to your illness, you were athletic and exercised regularly. Two years ago, you noticed you got more winded than usual on your daily jog, so you went to the doctor and had bloodwork, which revealed severe anemia. After transfusions, you underwent colonoscopy, which revealed colon cancer. CT showed spread of cancer to many other sites, including liver and lungs. You received extensive chemotherapy, targeted therapy, and immunotherapy over the past several months, including 4 different regimens. As a result, you have experienced severe fatigue, shortness of breath, nausea, abdominal pain, and neuropathy (pain, tingling and numbness in hands and feet and pain when drinking cold beverages). The most recent scans showed that the cancer had grown, so your oncologist decided to stop chemotherapy and refer you for a clinical trial. However, you have become increasingly short of breath as the cancer has taken over your lungs. You now depend on supplemental oxygen by nasal cannula. Even with oxygen, you can barely walk across the room before becoming very winded. Your appetite is poor, so you have lost much muscle mass. Your oncologist referred you for physical therapy and dietary evaluation and told you that “We can consider more chemotherapy if you gain weight and get stronger.” Your wife keeps nagging you to eat more so as to regain your strength. She says “How are you going to fight your cancer if you don’t eat?”

Emotion & personality

You come across as a matter of fact person. You are decisive- in your business (as an engineer in an oil and gas company) and in your personal life. You are a bit on the stoic side, since you served as an army ranger in Iraq and Afghanistan. You have a “can do” attitude, so you think that any obstacle can be overcome with hard work, faith, and a positive attitude. You are not the type to give up easily when faced with a challenge.

Here is a list of emotion-laden statements that you can pose to the doctor with the intention of eliciting empathic responses:

Emotional question or phrase	Possible empathic or exploratory response
I need to get back in shape so I can qualify for a trial	I respect how hard you are fighting your illness
I was mowing my lawn just two weeks ago.	I can only imagine how hard these changes are for you.
I need to be around to help my kids raise my grandkids	It sounds like you have done a great job looking out for your family
I was playing basketball with my kids just a few months ago	I can see how much you love your family. It sounds like you have done a great job raising them.
I don't want to talk about what ifs. I need to stay positive	I can only imagine how hard it is to talk about serious news or what happens if things don't go well.
I have strong faith and all the people at church are praying for me. I know I will be healed.	I respect your strong faith. Faith is powerful medicine.

Most doctors try to respond to these statements with facts or try to fix the situation, which is often ineffective. These questions are in some ways unanswerable. More importantly, they are emotional expressions and should therefore be answered with empathy, as shown in the table, above.

The doctor may also ask: "Have you ever thought about how you would want to live your life if your treatment doesn't turn out like you want it to?" You can say something like: "I don't want to talk about that. That way of thinking sounds defeatist, or like giving up." The empathic response is "I can only imagine how hard it is to think about such serious topics. It sounds like you are the type of person who wants to hope for the best rather than preparing for the worst."

APPENDIX B

QUALITATIVE EMPATHIC RESPONDING SURVEY

Responding to patients in palliative medicine

This survey contains examples of patient statements that you may face in clinical practice. In the box adjacent to each of the thirteen scenarios, please write how you would respond. Your responses should be between 1-3 sentences in length.

How would you respond to the following patient statements?

- 1) "Weed is the only thing that helps. I smoke five times a day."

- 2) "What are the side effects of morphine?"

- 3) "How much time do I have left?"

- 4) "I don't want to talk about machines or DNR, but that's all you people want to talk about. I'm not ready for that."

- 5) "What are the best foods for me to take to keep my weight up?"

- 6) "You're talking to me like I'm a criminal and you think I'm taking these meds and trying to sell them."

- 7) "What will happen to my kids? My family needs me."

Responding to patients in palliative medicine

Page 1 of 2

This survey contains examples of patient statements that you may face in clinical practice. In the box adjacent to each of the twelve scenarios, please write how you would respond. Your responses should be between 1-3 sentences in length.

How would you respond to the following patient statements?

- 1) "You don't know how I feel. I may not look like I'm hurting, but I have a high pain tolerance. I need these medications."

- 2) "Will I ever be normal again?"

- 3) "Do I take my morphine extended release tablets as needed, or on a schedule?"

- 4) "I can't stop life support. This is my daughter. I can't give up on her."

- 5) Patient with squamous cell carcinoma asks, "Why is the calcium in my blood so high?"

- 6) Son addressing his father who is the patient:

"I hate when you talk about giving up. We're not quitters in this family. You always told me never to quit."

APPENDIX C
SIMULATION CODEBOOK

Tape: _____

Start time: _____

Patient Talk Time: _____

Stop time: _____

Emotional Opportunity	N	U	R	S	E	Comments:
1						
2						
3						
4						
5						
6						
7						
8						
9						
10						
11						
12						
13						
14						
15						

Global Empathy: _____

Additional Comments: