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Coming in Warm: Qualitative Study and Concept Map to Cultivate Patient-Centered Empathy in Emergency Care

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Background: Increased empathy may improve patient perceptions and outcomes. No training

tool has been derived to teach empathy to emergency care providers. Accordingly, we engaged

patients to assist in creating a concept map to teach empathy to emergency care providers.

Methods: We recruited patients, patient caretakers and patient advocates with emergency

department experience to participate in three separate focus groups (n = 18 participants).

Facilitators guided discussion about behaviors that physicians should demonstrate in order to rapidly create trust, enhance patient perception that the physician understood the patient's point of view, needs, concerns, fears, and optimize patient/caregiver understanding of their experience. Verbatim transcripts from the three focus groups were read by the authors and by consensus, 5 major themes with 10 minor themes were identified. After creating a codebook with thematic definitions, one author reviewed all transcripts to a library of verbatim excerpts coded by theme. To test for inter-rater reliability, two other authors similarly coded a random sample of 40% of the transcripts. Authors independently chose excerpts that represented consensus and strong emotional responses from participants.

Results: Approximately 90% of opinions and preferences fell within 15 themes, with five central themes: Provider transparency, Acknowledgement of patient's emotions, Provider disposition, Trust in physician, and Listening. Participants also highlighted the need for authenticity, context and individuality to enhance empathic communication. For empathy map content, patients offered example behaviors that promote perceptions of physician warmth, respect, physical touch, knowledge of medical history, explanation of tests, transparency, and treating patients as partners. The resulting concept map was named the "Empathy Circle".

Conclusions: Focus group participants emphasized themes and tangible behaviors to improve empathy in emergency care. These were incorporated into the "Empathy Circle", a novel concept map that can serve as the framework to teach empathy to emergency care providers.

Introduction

Empathy can be defined as the ability to understand and share the feelings of another.[1] For physicians, empathizing with their patients includes understanding the patient's perspectives, concerns, feelings, and experiences. Empathy also requires physicians to

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communicate this understanding to their patients, initiating a sense of reciprocity, a key aspect of reassurance.[2] Empathy creates a foundation for a successful physician-patient relationship and enhances several aspects of patient care. In settings of recurrent and continuous care (e.g., primary care setting), improved empathy predicts better patient comprehension, more trust in the physicians, higher satisfaction with care, improved adherence, lower anxiety, and better clinical outcomes in chronic disease management.[3-6] Strategies to enhance physician empathy might reduce patient thoughts of suing a physician in the event of an adverse outcome.[7] To improve provider empathy, several tools and courses have been created and tested in the primary care setting.[3,8] However, current literature reveals no specific method or tool that has been derived to enhance empathy in the emergency care setting. The emergency care setting and associated patient experiences imposes a different set of challenges than other healthcare setting. These include the nature of the single encounter between strangers, reduced information and time availability of providers, patient exposure to long wait times, isolation, overcrowding and lack of privacy,[9] and multiple patient factors, including unpredictable disease acuity, high psychosocial stress and anxiety[9,10]

To ensure that the content of our concept map and ultimately empathy training contains the patient perspective, we convened three focus groups as a forum for advocates, patients and caretakers to discuss different aspects of their experiences in the emergency department. The patient perspective is important as we only have insight to the provider perspective of the relationship. We planned in advance for the facilitators to direct the dialogue toward a better understanding of specific verbal and non-verbal clinician behaviors that would improve perceptions of empathy in the patient-provider relationship.[10,11] Our objective was to use patient input from our focus groups to allow the construction of an empathy concept map to enhance empathic communication in the emergency department.

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Methods:

Theoretical construct of the work

From a learning perspective, the authors assume that the method to create empathy contains unknown domains to learners (a "black box") that must be broken into understandable actions, words and behaviors (i.e., a knowledge structure).[12] Thus, we undertook a cognitivist approach, meaning that a framework in the form of a visual concept map would facilitate acquisition and recall of the behaviors that enhance empathy.[13] This approach draws from the findings of a prior multicenter investigation of the thoughts and opinions of patients undergoing low value computerized tomographic imaging in the emergency department.[14] In that sample, we directed patients in the emergency department to provide a Likert scale ranking of 11 specific phrases, and to provide their own examples of words to enhance empathy, trust and positive feelings toward their physician. The present work takes the next step to interview patients, caretakers and advocates and allow a more personalized and detailed discussion in order to generate a concept map to teach empathy to emergency care providers. We hypothesized that patient-provided information would enable effective categorization and description of semantics and behaviors in a domain map as the center point to effectively teach empathy.

Participants

We conducted 3 focus groups between February 2017 and April 2018 with a goal of 18 participants, a sample size which has been found to produce 90% thematic saturation in comparable studies.[15] Each group comprised 6 participants with experience as a patient or family member in the emergency department. The first focus group took place in BLINDED FOR PEER REVIEW with participants from California (n=4, all African American), Pennsylvania (n=1, White), and Texas (n=1, White). In addition to all being patients themselves, these six were also recognized patient advocates, each associated with one or

more patient advocacy organizations. The second focus group was conducted in Dallas, TX with participants from that area, including four of Hispanic ethnicity. The third group was again conducted in BLINDED FOR PEER REVIEW with participants from that area, including four African American and two White participants. These locations were chosen for convenience with the primary intent to include a diverse group of patients. Participants from focus group #1 were all patient partners in the Society for Academic Emergency Medicine's 2016 Consensus Conference on shared decision making. Participants in focus groups #2 and 3 were recruited by research coordinators through direct solicitation in the emergency department. The coordinators identified participants who had more than 5 lifetime visits to the emergency department. The patients were asked if they were willing to participate in a focus group. Those that were willing received a follow up phone call to schedule the focus group. Tables 1 and 2 show the relevant demographic and medical characteristics of the focus group members. Specific ages of our participants were not collected, but authors estimate an age range of 30-65 amongst participants.

Procedures

The study was deemed exempted by the BLINDED FOR PEER REVIEW IRB. Each focus group was led by a different non-physician facilitator with experience in focus group facilitation and guided by established techniques[16,17]. The facilitators were made aware of our study hypothesis, but were allowed the flexibility to navigate the focus group without physician interference. Focus groups lasted between 4-6 hours and were video and audio recorded. At the onset, participants were informed of the purpose of the study. The focus groups used a semi-structured protocol that started by asking participants to share their previous experiences in the emergency department. The facilitator subsequently asked more directed questions to encourage the participants to reflect on important aspects of a desirable physician-patient relationship. One recurrent role of the facilitator was frequent

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redirection of participants toward explanation of and elaboration on positive verbal and nonverbal behaviors displayed by providers. These questions varied slightly for each focus group based on the flow of the conversation. Each focus group was also attended by at least three authors, who each created independent real-time field notes about the content of discussions with specific annotation about which discussions elicited the highest emotional reactions, and non-codable indications of nonverbal agreement from other participants (e.g., uniform head nodding, “uh huh” or “that’s right” from other members). The authors introduced themselves to the patients at the beginning of the focus group but served in an observer role unless a patient asked a direct question to them, which happened rarely. This was done so that the authors had limited influence on the conversation. Upon completion, participants were compensated with a $100 gift certificate for their time, possible lost wages, and any travel and/or parking costs.

Data analysis

We used a focused coding approach to determine the themes expressed by participants and develop a concept map, which became the framework for both our teaching tool and empathy training course.[18] The focus group sessions were transcribed verbatim and independently reviewed by three investigators to identify major themes and subthemes for creation of a codebook (see supplemental data). The authors then used the codebook to code passages from the transcripts for the focus groups. Authors also used this opportunity to connect the on-site emotional strength of each passage as documented in their real-time field notes. Randomly selected portions of the transcripts were coded by two authors to verify agreement. Verbatim phrases were tabulated under each theme and subtheme. Patient race strongly affects trust in medical systems, which may in turn affect perception of provider empathy; therefore, we included race of the speaker with excerpted phrases from focus group participants.{*}

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Initial thematic analysis of the qualitative data was conducted utilizing the constant comparative method.[19,20] Researchers applied codes representing the sentiment of each paragraph or data cluster and/or developed codes identifying patterns within the data themes.[21,22]

The authors also reviewed field notes individually and then together to generate consensus interpretations of strong and consistent observations.

Consolidation of themes into a concept map

After the initial focus group, authors used field notes, the preliminary codebook, and coding of the transcript to develop an initial concept map. Near the end of the following two focus groups, participants were shown a preliminary, unpublished draft of the concept map and asked to provide opinions, either verbally or by writing on paper copies. Participants were encouraged to provide opinions on words, actions, and content of the figure including its overall appearance and visual organization.

Results:

Transcript coding and thematic analysis revealed five major themes (Provider Transparency, Patient's Emotional State, Provider Disposition, Trust in Physician, and Listening to Patient) and 10 minor themes (Table 3). Each of these themes are described below and ordered by frequency.

Although we considered the frequency and duration of topic discussion as highly important, we used other factors observed in real time to make inclusions for Table 3. For example, our last major theme was not one of the most frequently discussed themes; however, the authors agreed that when it was discussed amongst the group it was very impactful and felt it needed to be a major theme.

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Provider Transparency

Transparency, defined as an open explanation of each step by the emergency physician, was the most common theme, present in 15% of coded phrases. Participants expressed the desire to hear physicians explain their thought processes behind testing, or not testing, and the plan of care for the visit. In addition, patients stated the desire for education to better understand their disease process or situation.

Participants stated strongly the desire for physicians to communicate with them as if they were a family member by using easily understandable language rather than medical jargon. As one Black male participant explained, "*Just talk to us cause we just like family. That's what they let me know, you know. And I appreciate that cause it made me kind of like communicate better with them.*"

Participants felt that having a physician who walked them through his/her thought process was helpful. Individuals shared that it was important to have the ability to align understanding as exemplified by the following passage from a White female participant:

> *"I think if he shares what he's thinking, that puts us more in tune so he can treat me better. Because if he's over here and I'm over here and we're never connecting, then how is he ever going to find out exactly what's going on with...he knows...with the symptom, where he can understand the symptoms and he can understand my level of pain or whatever I'm going through at that moment. We have to be on the same page, basically."*

Patients consistently expressed a clear desire to be involved in deciding testing or treatment options. This desire for shared governance is illustrated by the following excerpt from a White female:

> *"I think they should sit down and give you all the options, cause... I mean, you don't have to...there's several things that would run through their mind that they could do to*

test for this, and to sit down instead of just throwing you through the ringer of everything--to be like this is what your options are."

Participants expressed dissatisfaction when the provider was not transparent, and when they felt like they were alienated until they were able to see the information in writing on the discharge paperwork.

"When you get the discharge paperwork is when you finally see everything in print what they've done and what the results were. So I guess while you're in the ER, while all this is going on, something where I can see and go back to it and understand what's happening, why is this happening, and what is gonna come from it. Cause you really don't see that until you get discharged." (Black male)

Patient's Emotional State

Participants believed that empathy could not be achieved unless physicians had concern for their patients' emotional state. The most common emotions experienced and discussed repeatedly were fear and anxiety, present in approximately 10% of coded phrases. According to field notes taken by providers present during the focus groups, this was one of the more powerful messages. One Black female participant stated "*we wait until we are almost dead to go to the Emergency Room."*

Participants recognized that the provider's perception is often that the patient is healthy, but that perception discounts the fear that patients have at the time of their visit. As an example, one Black female participant explains her fear during one of her visits when she took her blood pressure at home and it was elevated:

"*You guys got to figure out what's wrong with me because I'm scared. I'm really scared."*

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Participants indicated that anxiety escalates with the perception of abandonment, as stated by a White female:

"*It makes people anxious to think they are forgotten."*

Participants indicated the need for cognitive reassurance (providing facts and thought processes with transparency) to alleviate fear[23]:

"*The lack of knowledge is the scariest thing when you have pain in your body."*

"The way that they were there with me. The way that they talked to me and everything. It just put me at ease. I was not as scared." (White female)

"Having answers puts you at ease. It puts your mind to ease, you know." (Hispanic female)

Provider Disposition

One participant offered the simple but strong recommendation that emergency physicians should "Come in warm." Provider disposition was a theme in 10% of coded transcripts and underscored the **importance** of nonverbal and verbal greetings to set the tone for the entire encounter. Example behaviors to "Come in warm" include smiling, shaking hands and making eye contact. The location of the physician in the room (sitting or standing, at the bedside or behind a computer) while interacting with patients is also important. One White female stated, "*Um, eye contact for me. You know, making eye contact for me and just kind of like, instead of just standing over me, maybe sit down maybe instead of just standing there. Being more, you know, at my level instead of just lording over me is how I feel like."* Another White female participant reiterated the importance of this by sharing, *"I mean, instead of actually sitting next to me--if a doctor was to come to sit next to me and actually talk to me with eye contact, it would make a world of difference than just standing behind a computer and talking to me from across the room."*

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Several participants shared how they appreciated when the physician was light-hearted and approachable. A Black female participant shared the example of telling a joke, "*I like when they come in, they crack a joke even though it ain't funny, and they try to make you laugh a little bit, try to ease you a little bit more. They...I like...that's a plus for me."*

Trust in Physician

Participants shared the sentiment that they tended to trust physicians more when they felt that their opinions and information were valued. One White female shared, "*If, uh, the doctor is talking over you instead of talking to you or not listening to what I'm actually saying, which is like just talking telling me what he's gonna do and not listening to what I'm saying, it's one of the things that would make me feel like there's distrust."*

Participants explained that trust was eroded if physicians appeared to be using scripts, memorized words, or other behavior that belied authenticity. A Black male participant described this the following way, "*And you can tell the difference when someone's trying to make the effort and trying to understand versus them just doing it for the show."* Participants shared that they would be more willing to trust a doctor who admitted to uncertainty and expressed desire for a second opinion from a specialist.

> *"I actually think, um, if a doctor was to come to me and say, 'I'm actually not 100% sure what's wrong with you. I think you should see this person and this person', or whatever--refer you to other doctors--it gives me more trust in them than them trying to fake that they know what I know. "* (White female)

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Listening to Patient

Listening encompassed multiple themes, but can be summarized as the capacity of physicians to make patients feel that their voice is heard. The simple concept of listening appeared to be another absolute prerequisite to the perception of empathy.

> *"If they haven't walked in your shoes, they don't know what you're going through, so therefore don't act like a know-it-all. Instead, trying to sympathize and actually listen to you, and try to understand even though...instead of being like, 'Oh, I've seen this before. Here's what we're gonna do. Bye.' Instead actually have that communication and understanding or trying to understand."* (White female)

The theme of listening was most strongly stated by participants who had or were caretakers of family members with chronic conditions. These participants pointed out that they believed they often have valuable information that is often ignored by physicians.

> *"Honestly, every time I go to the ER, I say, 'Look, I'm a special case. Ya'll gonna want to think this way.' And I tell them. I swear, ya'll. I tell them this. Ya'll gonna think this way. Please, just listen. Just listen. And they do their own thing. Then two days later, I'm back up in there. Every single time. So I'm waiting to meet that one doctor who's actually gonna listen."* (Black male)

Another Black female participant stated, "*When we come in and we tell them what's wrong and we've already been through this so many times, and then they ignore the fact that we already told them that, it…it does happen quite a few times with me."*

Construction of the concept map

To create the first draft of the concept map, the authors consolidated what they had learned from the multicenter survey and the focus groups to create 8-10 nodes represented by visual icons and words. The icons were sequenced to temporally match the typical ED visit. The

authors employed a physician with artistic ability (LKS) to draw a rough draft and then paid a professional medical illustrator to create Figure 1, The first derivation of the concept map and initial empathy teaching tool is shown. This concept map thus incorporates initial content from Lin et al[14], together with semantics and behaviors exemplifying themes with high frequency and emotional response from the present work. One patient participant specifically suggested the concepts be organized as a circle rather than a line, and noted "Y'all can call it the empathy circle." The sequence is meant to reflect the usual temporal set of events during an emergency department visit, as opposed to an order of importance. The intent of the figure is to serve as a cognitive learning aid that illuminates components of the black box of empathy, and to facilitate a didactic session to teach empathy to emergency care providers.

Discussion

This work provides the first empirical basis for the creation of a patient-informed concept map to teach empathy to emergency care providers. The rationale is clear because empathy benefits both patients and providers and has been tied to improved patient outcomes.[3,4,24,25] Unfortunately, allopathic and osteopathic medical school and residency training appears to reduce the capacity for empathy.[26,27] However, physician empathy can be enhanced through purposeful interventions.[3,25]

This work addresses an unmet need in emergency care education and training. The unique challenges (patient volume and acuity, limited resources, and boarding, for example) of creating an empathic relationship in the emergency department setting and the lack of a published method to teach empathy to emergency care providers motivated this work. The themes in Table 3 together with the excerpts, the concept map, and precedent literature on teaching empathy in other settings allows the construction of an emergency care-specific

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training course for empathy. Since the physician-patient relationship is by definition dyadic, it was critical to obtain patient perspectives for the components of the concept map in Figure 1. Patient input on other measures of healthcare have been obtained successfully through methods of focus groups or structured interviewing.[28]

The Empathy Circle contains the important aspects of empathic care as described by the patients in our three focus groups. We included all of the main themes as well as some of the minor themes within the circle. The Empathy Circle allows the adoption of a personalized approach to each unique patient-provider encounter as opposed to a one size fits all formulaic approach. Participants were clear that an insincere attempt to connect with patients or “scripting” would not be successful.

The Empathy Circle thus represents the framework for a didactic session to improve empathic care in the emergency department setting. Further research can determine the best way to teach these concepts to emergency care providers in order to achieve better patient care by enhancing the patient-provider relationship, decreasing unnecessary testing and cost, and improving patient compliance and outcomes. The authors created a three-hour empathy training workshop using the Empathy Circle as a center point, and are in the process of testing its effect on provider and patient perceptions of empathy in the emergency department setting.

Limitations of this work include the fact that the Empathy Circle, representing the concept map for a cognitivist approach to teaching empathy, is not a one-size fits all tool for patients or for providers. For example, the second step of the tool recommends that providers indicate that they have knowledge of the patient’s prior medical conditions. In many

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encounters, emergency physicians do not have access to medical records. Additionally, our focus group was 78% female, which could limit applicability. The Empathy Circle and associated training can only give providers a cognitive framework to understand how to be empathic, and cannot create caring providers. The Empathy Circle may not apply to patients with cognitive impairment, mental illness, or critical illness. We fully acknowledge that many factors affect empathy that may overwhelm training including personal stress, lack of sleep, burnout, overcrowding and patient factors. The most important limitation is that the Empathy Circle has not yet been tested on learners and therefore both the Empathy Circle itself and the empathy training workshop may require refinement.

Conclusions

Thematic coding of transcripts from three focus groups representing geographic, ethnic and disease diversity revealed five major and 10 minor themes. These themes, together with field notes and information from a prior multicenter survey, allowed the construction of the "Empathy Circle," a concept map and basis of a didactic to teach empathy to emergency care providers.

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Table 1. Demographic characteristics of Focus Group Participants

	Focus Group Participants (n=18)									
	Gender		**Race**		**Ethnicity**		**Place of residence**			
	Male	female	White	Non-white	Latino	Non-Latino	South	Midwest	East	West
Total #	4	14	10	8	3	15	7	6	1	4
Percentage	22	78	56	44	17	83	39	33	6	22

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Table 2: Medical conditions represented by focus group participants by report.

Focus Group 1
BF-History of connective tissue disease and possibly multiple sclerosis
BF-History of hypertension, diabetes, chronic anxiety; experienced patient advocate for care of urban patients with healthcare disparities
BF-Prior history of chronic migraine headaches, law student and participant in patient advocacy groups
BF-Chronic anemia, multiple emergency department visits and hospitalizations for post-surgical (hysterectomy) complications
WM-Stable heart disease of chronic medical condition, patient advocate representing a cardiovascular group
WF-Caretaker of a severely brain injured child
Focus Group 2
WM-Heart failure, chronic musculoskeletal pain
LF-Prior history of cholelithiasis requiring cholecystectomy, hypertension, diabetes
LF-Caretaker of child with chromosomal abnormality causing multiple organ dysfunction
LF-Multiple chronic medical conditions requiring frequent emergency department visits
WF-Schoolteacher with stable and minor medical problems
BF-Chronic recurring chest pain ultimately diagnosed as hypertrophic asymmetric cardiomyopathy
Focus Group 3
BM-End stage renal disease requiring dialysis
WF-Chronic somatic pain diagnosed as fibromyalgia
BF-Caregiver for family member with pancreatic cancer
BM-Elderly, wheelchair bound, heart failure
WF-Chronic recurring skin infections requiring frequent emergency department visits
WF-Chronic lung disease and heart failure requiring defibrillator
Abbreviations: BF-Black female, BM-Black male, WF-White female, WM-White male, LF-Latino female

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Table 3. Results of transcript coding: Focus group themes, definitions and frequency.

Rank	**Coded theme**	**Description**	**Frequency**
1	TRA* Transparency	The extent to which the physician describes each step of the interaction/visit or helps a patient understand their disease process or situation	15.3%
2	DIS* Disposition	How the physician presents him or herself	12%
3	TRU* Trust	Refers to patients having or developing trust in their physician	10.7%
4	EMO* Emotion: Fear/Anxiety	Emotional state of the patient, specifically those emotions of fear or anxiety	10.7%
5	NVC Nonverbal Communication	Describes all aspects of nonverbal communication	8%
6	SPI Spirituality	Patient reference to their spirituality or whether spirituality should be addressed	8%
7	EXP Understanding Patient Expectations	Issues that refer to physician or ED as a whole not meeting expectations that a patient had going in to the ED visit	7.7%
8	ENV Environmental Issues	Patient perception of the physical space and their surroundings in the hospital/ED	7%
9	COM Communication with Healthcare Team	Alignment of physicians, nurses, techs, etc in terms of words and instructions. Also refers to the way a physician talks to the rest of the team.	5%
10	LIS* Listen	Refers to the physician listening and paying attention to the patient and his/her needs	4.6%
11	HD Disparities	Any issue, story, example, concern that involves disparity in healthcare	3.3%
12	HIS History	Physician knowledge of the patient's medical history	2.7%

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Rank	Coded theme	Description	Frequency
13	INV Involve	Soliciting involvement of others in the patient's healthcare – family in the room, healthcare providers in follow up. This also refers to treating the patient as a teammate in their own healthcare.	2%
14	SPE Speech	Physician speech volume, pattern or tone	1.7%
15	WHO Whole Person	Treating the patient as a whole person and not a disease process	1.7%

*Selected as a major theme

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