

Does emergency physician empathy reduce thoughts of litigation? A randomised trial

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ABSTRACT

Background We hypothesised the addition of brief empathetic statements to physician–patient interaction might decrease thoughts regarding litigation.

Methods We enrolled a convenience sample of adults in our emergency department (ED) waiting room into a randomised, double-blind controlled trial. Subjects watched videos of simulated discharge conversations between physicians and patient actors; half of the videos differed only by the inclusion of two brief empathetic statements: verbalisations that (1) the physician recognises that the patient is concerned about their symptoms and (2) the patient knows their typical state of health better than a physician seeing them for the first time and did the right thing by seeking evaluation. After watching the video subjects were asked to score a five-point Likert scale their thoughts regarding suing this physician in the event of a missed outcome leading to lost work (primary outcome), and four measures of satisfaction with the physician encounter (secondary outcomes).

Results We enrolled and randomised 437 subjects. 213 in the empathy group and 208 in the non-empathy group completed the trial. Sixteen subjects did not complete the trial due to computer malfunction or incomplete data sheets. Empathy group subjects reported statistically significant less thoughts of litigation than the non-empathy group (mean Likert scale 2.66 vs 2.95, difference -0.29 , 95% CI -0.04 to -0.54 , $p=0.0176$). All four secondary measures of satisfaction with the physician encounter were better in the empathy group.

Conclusions In this study, the addition of brief empathetic statements to ED discharge scenarios was associated with a statistically significant reduction in thoughts regarding litigation.

Clinical trial registration NCT01837706.

INTRODUCTION

Emergency physicians have a higher than average risk of litigation relative to other specialties.¹ Physicians with better interpersonal skills and who spend more time with patients have fewer malpractice claims²; however, these efforts can be difficult to implement in the time-pressed environment of the emergency department (ED).

Physician empathy is likely to influence how patients view their healthcare providers.^{3–5} Empathy is defined as a 'cognitive attribute (as opposed to affective) that involves an understanding of the inner experiences and perspectives of the patient combined with a capability to communicate this understanding to the patient'.^{6,7} Respectful affirmation of both the patient's worry and insight

Key messages

What is already known on this subject?

Studies show emergency physicians have a higher than average risk of litigation relative to other specialties. Physicians with better interpersonal skills and who spend more time with patients have been shown to have fewer malpractice claims. Our objective was to assess whether the presence or absence of brief emergency physician empathetic statements would alter patient thoughts regarding litigation.

What might this study add?

In this randomised study of subjects observing discharge scenarios, the addition of brief empathetic statements was associated with a statistically significant reduction in thoughts of litigating as well as more positive impressions of the physician and better understanding of instructions.

into their condition is a specific form of demonstrating empathy anecdotally practiced by some emergency physicians. The physician verbalises a recognition and appreciation that the patient is concerned about their symptoms, and then acknowledges that the patient knows their typical state of health better than a physician meeting them for the first time. If physician empathetic behaviour was found to reduce a patient's thoughts towards litigation, then emergency physicians should consider adopting such simple verbalisations in their bedside interactions.

Our primary objective was to assess whether the presence or absence of emergency physician empathetic statements in videotaped simulated encounters would alter patient thoughts regarding litigation. Our secondary objectives were to assess whether the presence or absence of these statements altered patient perceptions of discharge instruction clarity, physician expertise, level of physician caring and desire to have the physician as their doctor.

METHODS

Study design

We performed a prospective, double-blind controlled trial enrolling and randomising a convenience sample of subjects in the waiting room areas of a tertiary academic medical centre with an annual census of 62 000 patients. The study



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qualified for exempt status by our institutional review board site, was approved, and was registered (clinicaltrials.gov NCT01837706).

Study setting and population

Trained research assistants identified study candidates from our ED waiting room. We included literate English speakers aged 18 years or older. Study videos were created in English only, and thus non-English speaking subjects were excluded from the study. (In our ED non-English speakers compose 14% of the population.) We also excluded those with altered mental status or those taken back to an ED treatment room before the study intervention could be completed. Subject recruitment occurred in a convenience sample based upon when research assistants were available, and included an assortment of days, nights and weekends. Recruited subjects were not selected consecutively but rather by obtaining a convenience sample from available individuals in the ED waiting room. We enrolled subjects between 30 August 2012 and 30 May 2013.

Study protocol

Following informed consent, each subject was allocated to watch one of eight different study videos using the next available choice in a block-randomised schedule (blocks of eight) generated using <http://www.randomization.com>. The video selections were marked by the letters A through H with the code unknown to the research assistant. Thus, both subject and research assistant were blinded to the specific video variation allocated. The subject used an iPad to first watch the video and then answers a series of outcome questions.

We created eight videos of simulated discharge conversations between physicians and patient actors using permutations of clinical scenarios, gender and the presence or absence of empathetic statements. The two videotaped physicians are board certified in emergency medicine and have >10 years of practice. All videos, including the non-empathic encounters, portrayed a friendly, professional and confident physician. Videos including empathy differ from those without solely by the inclusion of two added statements: brief verbalisations that (1) the physician recognises that the patient is concerned about their symptoms and (2) the patient knows their typical state of health better than a physician seeing them for the first time and did the right thing by seeking evaluation.

Internet links to the actual videos used in the study and their respective running times are shown in [table 1](#). Empathy versions of the four video pairs were 18, 10, 11 and 9 s longer than the non-empathy versions ([table 1](#)).

Table 1 Internet links and running times for the study videos

Video version	Time (s)	Internet link
Wrist pain, male doctor with empathy	44	http://goo.gl/gXhr3K
Wrist pain, male doctor no empathy	26	http://goo.gl/HCS0Ww
Wrist pain, female doctor with empathy	38	http://goo.gl/gjYZMJ
Wrist pain, female doctor no empathy	28	http://goo.gl/tzJU29
Chest pain, male doctor with empathy	67	http://goo.gl/aKlt1L
Chest pain, male doctor no empathy	58	http://goo.gl/li9MqL
Chest pain, female doctor with empathy	73	https://youtu.be/yZPxJwEbiOU
Chest pain, female doctor no empathy	64	http://goo.gl/4HaaGX

Outcome measures

Subjects answered each outcome question with a five-point Likert scale using the following descriptors: definitely no, possibly no, uncertain, possibly yes and definitely yes.

Since our secondary outcome questions were less emotionally sensitive we asked them first: (1) Did you understand the instructions the doctor gave to the patient? (2) Do you believe this physician was an expert? (3) Do you think this doctor cared about this patient? (4) Would you want this physician as your doctor?

Subjects then used the same Likert scale to answer our primary outcome question regarding thoughts regarding litigation. For the wrist pain scenario the question was: 'Imagine that you were this patient, that you had a broken wrist that was not seen on X-ray, and that as a result you couldn't work for six months. If a relative lined up for you a lawyer willing to take the case, would you sue this doctor?' The corresponding question for the low-risk chest pain scenario was: 'Imagine that you were this patient, that you had a heart attack the next day, and that as a result you were no longer able to earn a living. If a relative lined up for you a lawyer willing to take the case, would you sue this doctor?'

Finally, we asked patients to self-report their gender and age.

Data analysis

For our main outcome we contrasted the distributions of Likert scores graphically. We then compared their means using size of effect and 95% CIs, and their distributions using the Wilcoxon rank sum test. Recognising that not all observers consider Likert scale data ordinal, we also performed a 5×2 χ^2 analysis as a more conservative safety check. We contrasted secondary outcomes using sizes of effect and 95% CIs. All analyses were performed using Stata V.12 (StataCorp, College Station, Texas, USA).

There are no prior data on the minimum magnitude of Likert scale differences that are clinically important, so given the substantial adverse impact of most lawsuits we conservatively specified 0.25 scale points. The sample size needed to detect this threshold (assuming α 0.05, power of 0.8 and an SD of 0.9) was 204 subjects in each group (Stata V.12.1).

RESULTS

Subject enrolment and flow are shown in [figure 1](#). The study ended once the enrolment goal was met. Baseline characteristics were similar between the 213 empathy and 208 non-empathy subjects who completed the trial ([table 2](#)). Fifteen per cent of subjects did not report gender.

Subjects in the empathy group reported a statistically significant reduction in thoughts of litigation than those in the non-empathy group ([table 3](#), [figure 2](#)). This difference was greater than our estimated threshold for clinical importance. All four secondary measures of satisfaction with the physician were statistically significantly better in the empathy group ([table 3](#)).

The sizes of effect on thoughts toward litigation appeared greater in the more serious chest pain scenario, when the patient was female, and perhaps when patients were younger ([table 4](#)), although these subset analyses should be interpreted with caution due to smaller samples.

DISCUSSION

Main findings

In this video simulation study we found that the addition of brief empathetic statements to ED discharge scenarios was

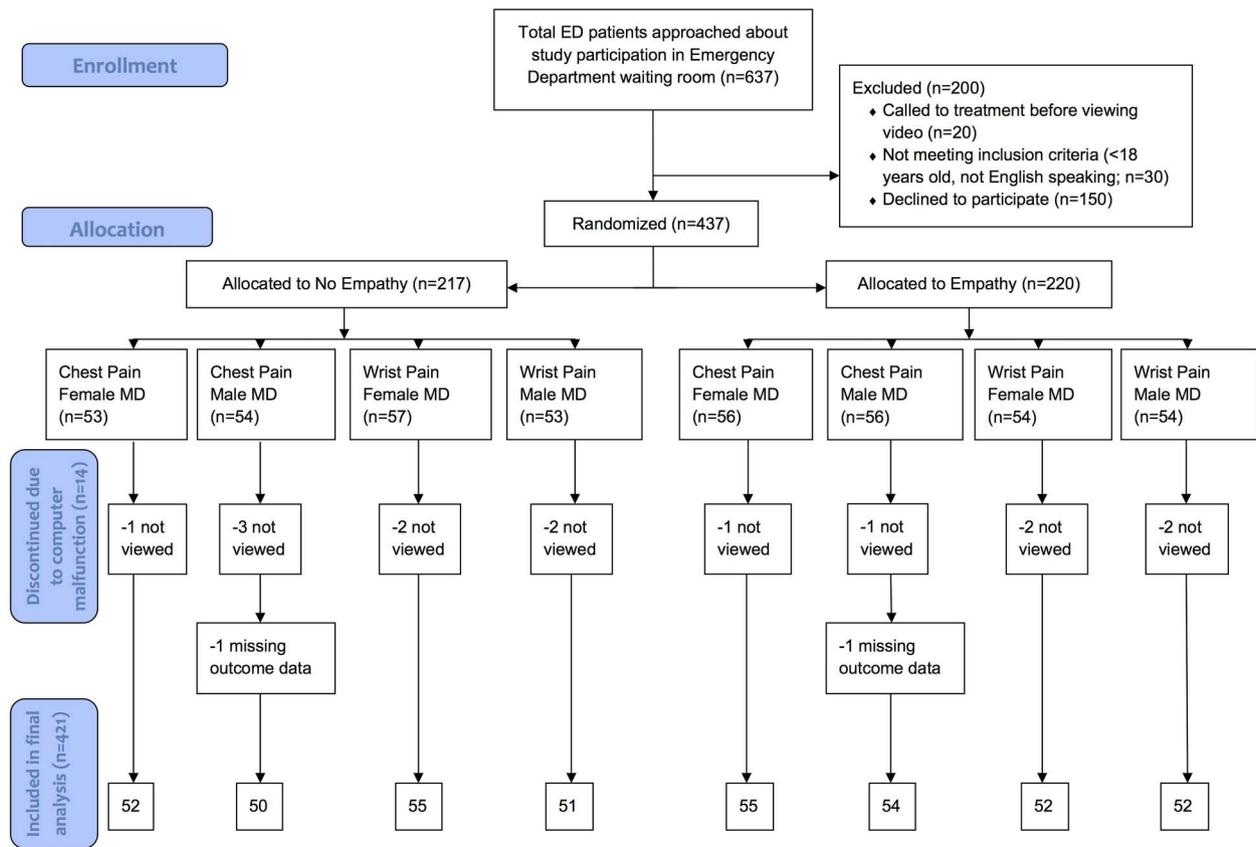


Figure 1 Consort diagram of subject enrolment and flow.

associated with statistically significant reductions in thoughts of litigation as measured by a self-reported Likert scale. We also found that when empathy was demonstrated, subjects were more likely to regard the physicians' discharge instructions as understandable, to regard the physician as an 'expert', to believe that the doctor cared about the patient, and to want this physician as their doctor.

The relevance of our observed positive results are open to interpretation, as we arbitrarily specified a Likert scale mean difference of 0.25 as clinically important. Clinicians must judge for themselves whether the 0.29-point improvement we found on our 5-point thoughts of litigation scale (ie, a 6% relative

difference) might justify demonstrating empathy to their patient encounters. (In the more serious chest pain subset the size of effect was 0.43 points, ie, a 9% relative difference.) However, we will argue that this difference is clinically important. Additionally, while the ratio of the male to female subjects appears balanced across the treatment arms, 15% of study

Table 2 Baseline characteristics of study subjects

	Empathy (n=213)	No empathy (n=208)
Gender		
Male	123 (57.7%)	128 (61.5%)
Female	47 (22.1%)	61 (29.3%)
Not reported	43 (20.2%)	19 (9.1%)
Age		
18–24	45 (21.1%)	39 (19.1%)
25–34	50 (23.5%)	55 (26.4%)
35–44	44 (21.1%)	42 (20.2%)
45–54	35 (16.4%)	36 (17.3%)
55–64	20 (9.4%)	19 (9.1%)
65–74	12 (6.0%)	10 (5.0%)
75+	5 (2.3%)	5 (2.4%)
Not reported	2 (0.01%)	2 (0.01%)

Table 3 Comparison of study outcomes by empathy

Question	Empathy (n=213)	No empathy (n=208)	Difference (95% CI)
Primary outcome (mean Likert scores)			
Would you sue this doctor?*	2.66 (1.28)	2.95 (1.28)	-0.29 (-0.04 to -0.53)
Secondary outcomes (mean Likert scores)			
Did you understand the instructions the doctor gave to the patient?	4.75 (0.59)	4.58 (0.86)	0.17 (0.03 to 0.30)
Do you believe this physician was an expert?	4.25 (0.84)	3.87 (1.58)	0.38 (0.19 to 0.57)
Do you think this doctor cared about this patient?	4.43 (0.82)	3.98 (1.58)	0.45 (0.26 to 0.64)
Would you want this physician as your doctor?†	4.10 (0.89)	3.49 (1.31)	0.62 (0.40 to 0.83)

Values reported as mean (SD).

*Wilcoxon rank sum p=0.0176, χ^2 p=0.020.

†Not all subjects answered this question, and the results shown are for 203 subjects in the empathy group and 203 in the non-empathy group.

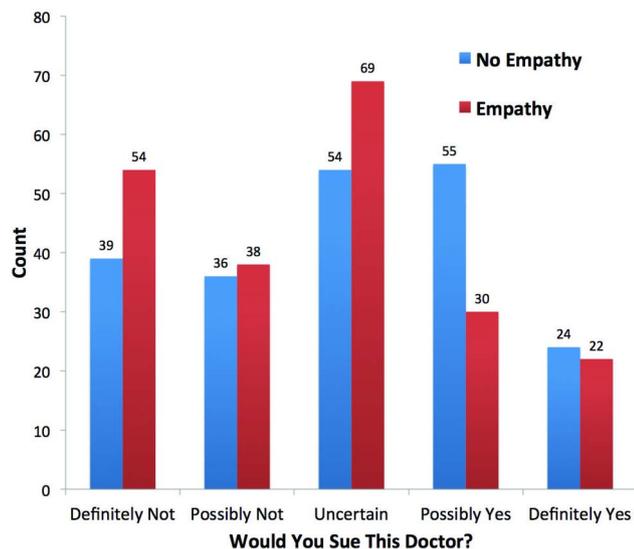


Figure 2 Distribution of thoughts of suing by empathy.

subjects did not report gender and theoretically this sample could under represent women. However, women do not appear more likely to sue than men, and thus this should not adversely impact our results.

Given the trivial additional time required, the substantial adverse impact of most lawsuits, and the observed improvement in multiple other measures of patient satisfaction, why not demonstrate your empathy in this manner? Demonstration of empathy also provides physicians the opportunity to be respectful to patients for their own sake. A systematic review done by Derksen found that empathy improves patient satisfaction and also leads to increased patient compliance, decreased patient anxiety and improved clinical outcomes.⁸ We encourage readers to watch our actual videos to see how simple and natural the added empathetic statements can be.

Empathy is defined as a cognitive domain but the crux of successful empathetic communication lies in both the cognitive and behavioural components of empathy.⁹ Put simply, physicians demonstrate empathy well when they accurately understand the

patient's feelings and then convey that understanding to the patient. The first of two empathetic interventions used in our study was the physician verbally acknowledging that the patient is concerned about their symptoms. The intervention is short, effective and able to be applied to most patients presenting to the ED.

The second empathetic intervention studied was a physician acknowledgement that the patient knows their typical state of health better than a physician seeing them for the first time. This verbalisation demonstrates an understanding of the patient's feelings and recognition that their view is often unique. Such an acknowledgement is not an abdication of the physician's opinion, training or experience regarding optimal treatment, but rather a behavioural dimension of demonstrating empathy, that is, the capacity to convey an understanding of the patient's emotions.⁴ In a qualitative analysis of plaintiff's depositions, Beckman *et al* noted that a failure to demonstrate understanding of or an appreciation for a patient's perspective on their illness was associated with a decision to litigate.¹⁰

Although we studied these two empathetic interventions long-practiced by one of our investigators, we acknowledge that we do not know if these are the best or only effective style of demonstrating physician empathy. The physicians participating in the video creation did not receive any additional training on how to demonstrate empathy more effectively. Despite the increased understanding and importance of empathy, recent analysis by Neumann has indicated that starting in medical school and continuing into residency there is a trend towards decreased empathy.¹¹ We encourage others to both replicate our research and investigate other variations of such physician behaviours. Once best practices are clearly identified, additional training in how to demonstrate empathy effectively could be used to counter the trend Neumann identified.

Limitations

The principal limitation of our study was that we did not measure actual malpractice risk, but rather self-reported thoughts regarding litigation in a simulated encounter. We do not know if these immediate thoughts about avoiding a suit would translate into a decreased long-term likelihood of

Table 4 Subgroup analyses by empathy

Would you sue this doctor?	Empathy*	No empathy*	Difference (95% CI)
Chest pain scenario (n=109, 102)	2.73 (1.23)	3.17 (1.27)	-0.43 (-0.09 to -0.77)
Wrist injury scenario (n=104, 106)	2.59 (1.33)	2.74 (1.27)	-0.15 (0.20 to -0.5)
Male patient (n=61, 47)	2.87 (1.23)	3.04 (1.23)	-0.17 (0.30 to -0.65)
Female patient (n=128, 123)	2.55 (1.27)	3.02 (1.26)	-0.47 (-0.15 to -0.79)
Male physician (n=106, 101)	2.56 (1.24)	2.91 (1.33)	-0.35 (-0.001 to -0.71)
Female physician (n=107, 107)	2.77 (1.31)	2.98 (1.24)	-0.21 (0.13 to -0.56)
Patient age 18-24 (n=45, 39)	2.96 (1.28)	3.38 (1.23)	-0.43 (0.12 to -0.98)
Patient age 25-34 (n=50, 55)	2.58 (1.16)	2.95 (1.25)	-0.37 (0.10 to -0.83)
Patient age 35-44 (n=44, 42)	2.70 (1.21)	3.02 (1.32)	-0.32 (0.22 to -0.86)
Patient age 45-54 (n=35, 36)	2.29 (1.34)	2.83 (1.32)	-0.55 (0.08 to -1.18)
Patient age 55-64 (n=20, 19)	2.95 (1.39)	2.47 (1.31)	0.48 (1.35 to -0.40)
Patient age 65-74 (n=12, 10)	2.25 (1.22)	2.40 (1.17)	-0.15 (0.92 to -1.22)
Patient age 75+ (n=5, 5)	2.20 (1.64)	2.40 (1.34)	-0.20 (1.99 to -2.39)

Values reported as mean (SD).

*Reported as mean Likert scales.

bringing a claim. Our study also does not assess baseline self-reported predisposition to sue among participants. We cannot know whether our participants have under-reported or over-reported their intent to sue relative to a real-world behaviour.

A second limitation is that we were unable to obtain baseline data on the 150 individuals who declined to participate in the study; however, we have no reason to believe that they differed substantially from those who agreed to participate.

An additional limitation is that for the purposes of brevity our videos only included the discharge conversation between the physician and the patient. Ongoing empathy demonstrated through an entire ED visit might enhance the positive impact observed.

As the video conversations were recorded in English we excluded subjects who did not speak English, and it is possible that the apparent impact of empathy may differ in uncertain ways based upon cultural factors.

CONCLUSIONS

In summary, we found that the addition of brief empathetic statements to ED discharge scenarios in a video simulation study was associated with a statistically significant reduction in thoughts regarding litigation.

Contributors JK, DDS, ETR and SMG conceived the study protocol, design and methods. JK, DDS, TP and ETR undertook recruitment of volunteers and managed the data, equipment and quality control. SMG and ETR both contributed to the statistical advice on study design and analysed the data. DDS, JK, ETR, SMG and ELW drafted the manuscript, and all authors contributed substantially to its revision. DDS is the guarantor.

Competing interests None declared.

Ethics approval Loma Linda University Institutional Review Board.

Provenance and peer review Not commissioned; externally peer reviewed.

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