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The Effect of Shared Decision-Making on Patients' Likelihood of Filing a Complaint or Lawsuit: A Simulation Study

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Abstract

Objective: Shared decision-making (SDM) has been promoted as a method to increase the patient-centeredness of medical decision-making and decrease low-yield testing, but little is known about its medico-legal ramifications in the setting of an adverse outcome. We sought to determine if the use of SDM changes perceptions of fault and liability in the case of an adverse outcome.

Methods: Randomized controlled simulation experiment conducted via survey, utilizing clinical vignettes featuring either 1) No SDM, 2) Brief SDM, or 3) Thorough SDM. Participants were adult US citizens recruited via an online crowdsourcing platform. Participants were randomized to vignettes portraying one of three levels of SDM. All other information given was identical, including the final clinical decision and the adverse outcome. The primary outcome was reported likelihood of pursuing legal action. Secondary outcomes included perceptions of fault, quality of care, and trust in physician.

Results: We recruited 804 participants. Participants exposed to SDM (“Brief” and “Thorough”) were 80% less likely to report a plan to contact a lawyer than those participants not exposed to SDM (12% and 11% versus 41%; OR 0.2; 95%CI: 0.12–0.31). Participants exposed to either level of SDM reported higher trust, rated their physicians more highly, and were less likely to fault their physicians for the adverse outcome as compared to those exposed to the “No SDM” vignette.

Conclusion and Relevance: In the setting of an adverse outcome from a missed diagnosis, use of SDM may affect patients’ perceptions of fault and liability.

Keywords

shared decision-making; malpractice; liability; patients’ perspectives; patient-centered care; patient engagement

Introduction

Background

Shared decision-making (SDM) – an approach where clinicians and patients share the best available evidence when faced with the task of making decisions, and where clinicians support patients in considering options in order to achieve informed preferences - has been called “the pinnacle of patient-centered care.”^{1,2} It has been promoted and studied for decades under the premise that it enables patient-centered care, facilitates patient autonomy, and may improve resource utilization.^{3–5} SDM has also been proposed as a method to decrease over-testing, as some evidence suggests that when patients fully understand risks and benefits, they are less likely to choose invasive or aggressive options.^{6–7} In this way, SDM may reduce defensive medicine, where tests of marginal utility are ordered primarily to decrease the physicians’ perceived medicolegal risk.⁸ The practice of defensive medicine is thought to cost an estimated \$46 billion annually in the US, where the majority of physicians report overusing tests in order to mitigate their liability.^{8–9}

Importance

Over 75% of Emergency Physicians (EPs) will be named in a malpractice claim at some point in their career, and those who are will spend an average of over 4 years engaged in that claim.¹⁰ Emergency medicine has high malpractice risk because of the undifferentiated patient population, limited time, and high medical acuity.¹¹ Most EPs admit to ordering medically unnecessary imaging and cite fear of malpractice as a main reason, but also recognize that involving patients in SDM could help decrease the amount of medically unnecessary tests ordered.⁷ However, no clear evidence exists regarding the effect of SDM on malpractice risk, and physicians have cited this as a barrier to implementation of SDM.
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Goals of This Investigation

Decreasing unnecessary testing and reducing physicians' medicolegal risk are not the primary objectives of SDM. However, to gather evidence to support implementation efforts, and in response to input from physician-stakeholders,¹² we sought to assess the potential medicolegal consequences of SDM. Specifically, we sought to determine if Emergency Department patients would have different perceptions of fault and liability when the physician engaged them in SDM as compared to when the physician conveyed the same information, but used a physician-centered approach to clinical decision-making. We hypothesized that participants in a simulation would self-report a lower likelihood of intention to contact a lawyer if SDM was employed.

Methods

Study Design

We conducted a randomized experiment via questionnaire (Figure 1). Instrument design, development, and testing are described below.

Selection of Participants

We used Amazon Mechanical Turk (MTurk) to recruit respondents ages 18 and over residing in the United States (Amazon MTurk Beta, Seattle, WA, USA).¹⁵ MTurk is an online, web-based platform that allows researchers to crowdsource tasks such as surveys and experiments. Its use for academic research has been extensively studied, and a recent systematic review found that results obtained via MTurk were largely comparable to those collected via more conventional means such as convenience sample recruiting.^{16–18} Respondents were asked various questions to assess their similarity to ED patients (such as relating to their own use of the ED). Respondents were incentivized according the standard MTurk guidelines based on the duration of participation (8–12 minutes) and federal minimum wage (\$7.25), which resulted in a payment of \$1.50. Respondents are prevented from answering surveys more than once. Since MTurk closes a task once the requested number of respondents is reached, a response rate cannot be calculated. The platform directed participants to the survey, which was created with Qualtrics, allowing for randomization of each participant to one of three groups (Qualtrics Version 11.17, Provo, Utah, USA). The study was granted exempt status by the local Institutional Review Board.

Interventions

Experiment design and questionnaire development

A vignette-based questionnaire was developed using previous literature and input from practicing Emergency Physicians.^{19–20} Three versions of the questionnaire were developed, with each version varying the degree of SDM that occurred (No SDM, Brief SDM, and Thorough SDM). The questionnaire was refined via 29 cognitive interviews and was piloted twice in two groups of 30 participants. We decided to use the clinical scenario of suspected appendicitis for two reasons; first, physicians report using SDM in this scenario, and second, “failure or delay in diagnosis” is the most common reason a lawsuit is filed against an emergency provider.^{12,21}

The final questionnaire (Supplemental Material A-D) consisted of 6 sections: 1) a vignette describing the patient’s presentation to the ED for abdominal pain; 2) one of three possible physician-patient dialogues regarding the ordering of a Computed Tomography (CT) scan of the abdomen/pelvis; 3) a manipulation check to assess whether participants read the dialogue carefully and recognized the aspects of communication presented; 4) the conclusion of the scenario which results in a repeat ED visit and a CT demonstrating ruptured appendicitis (and an explanation of the adverse consequences of the delay in diagnosis); 5) items assessing the participants’ response to the scenario and dialogue, in light of the adverse outcome; 6) demographic variables. None of the sections varied other than the second, and each section is described in detail below.

Questionnaire Development: Dialogue Development

A detailed description of Dialogue Development is available in Supplement E. In order to ensure realistic dialogues, 301 practicing emergency clinicians contributed to dialogue development by indicating what concepts they usually convey both when having an SDM conversation in the simulated clinical scenario and when not engaging patients in decision-making regarding the use of a CT scan. Regarding content, the “No SDM” dialogue contained the same information and was the same length as the “Brief SDM” (e.g. reasons to return to the ED) The difference between the “No SDM” and “Brief SDM” scenarios was that the physician explained that a decision needed to be made and solicited the preferences of the patient. In the “Brief SDM” scenario, the physician points out they are giving the “advantages and disadvantages,” but the actual information conveyed is the same as in the “No SDM” group. The “Thorough SDM” dialogue contained additional information and was longer.

Conclusion of Vignette

Final questionnaires differed only in the dialogue between the patient and physician (Figure 1), the rest of the vignette was identical across all three groups (the initial explanation of the patient’s presenting concern and the final outcome). In all vignettes, a CT was not obtained and the patient came back to the ED with ruptured appendicitis requiring an extensive surgical procedure, a prolonged recovery, and a 6-week absence from work. In all vignettes, after the ruptured appendix was diagnosed, a physician explained that had the CT been obtained upon the first ED visit, the surgical procedure and recovery would have been

significantly reduced. Each participant received only one vignette and were not aware of the manipulated variable.

Measurements

Manipulation check

A manipulation check asks participants directly about the manipulated variable, in this case, the degree of SDM, in order to ensure that the variable is truly perceived as different between groups.²² To assess whether the dialogues communicated the degree of SDM intended, participants were given a description of SDM and asked if the dialogue, in their opinion, met the definition provided. They also completed the SDM-9, a validated measure of SDM which asks 9 questions about whether a conversation met the criteria for SDM (such as “My doctor made clear that a decision needs to be made.”).²³

Assessment of Responses to the Vignette and Dialogue

Participants were instructed to consider both what happened at their first ED visit (the manipulated dialogue) and the conclusion of the scenario (the adverse outcome) when answering the remaining questions. A set of 5 items was developed to assess participants’ behavioral intentions, with behaviors ranging from complaining to friends and family to contacting a lawyer and initiating a lawsuit. As all 5 items referred to behaviors (e.g. “How likely would you be to file a formal complaint with the claims department regarding your first ED visit?”), the five response options were: “very unlikely”, “somewhat unlikely,” “neutral,” “somewhat likely,” and “very likely.” Based on our previous work involving medical error, seven items were developed to assess feelings of blame and fault (e.g. “The doctor in this case was at fault”); and five response options were provided: “strongly disagree,” “disagree,” “neutral,” “agree,” and “strongly agree.”¹⁹ Four items assessed perception of overall care (HCAHPS), whether the dialogue was perceived to be realistic, and the physician’s communication skills.²⁴ Lastly, participants were asked to fill out a validated 5-item Trust-In-Physician scale.²⁵

Demographic Information

The final set of items elicited standard demographic information (e.g., age, race, primary language, education, health insurance) and previous experience with medical malpractice. In order to assess for generalizability with ED patients, participants were also asked if they had been to an ED as a patient or family/friend, and how many visits they had in the past 12 months.

Primary and Secondary Outcomes

The primary outcome was the proportion of participants in each group who, after reading the entire vignette, responded that they were “somewhat likely” or “very likely” to contact a lawyer to discuss their options. Secondary outcomes included other measures of fault and blame, physician ratings, and reported Trust-in-Physician.

Analysis

The sample size needed for this study was calculated based on the assumption that a difference in “intent to sue” from 20% to 10% would be clinically meaningful. Based on this assumption, 250 participants per group would give a power of 86% to detect this degree of difference at a two-sided 0.05 significance level. Because we had three groups and wanted to account for missing data, we planned to have approximately 800 total respondents.

Descriptive statistics were used to describe the characteristics of participants. Chi-square and Fisher’s Exact tests were used to assess whether degree of SDM influenced responses to the items intended to measure intent to sue and secondary measures, and 95% CIs were calculated. Perception of liability was dichotomized, with “somewhat likely” and “very likely” combined, and “very unlikely,” “somewhat unlikely,” and “neutral” combined. Statistical analyses were completed with R (R Foundation for Statistical Computing, Vienna, Austria. <http://www.R-project.org/>)

Results

Characteristics of Study Subjects

A total of 812 respondents were randomized and 804 had complete data for the manipulation check and the primary outcome. Participants were between the ages of 19 and 73 with a mean age of 36, and were 46% female and 79% white (Table 1). Eighty-eight percent had visited an ED as a patient or friend/family. There were no significant differences between groups regarding collected demographics. Twenty-two percent reported that they or a family member had an experience with a similar medical scenario (with or without an adverse outcome), and 3% percent reported they had filed a claim or lawsuit against a healthcare provider.

Manipulation Check

The results of the manipulation check indicated that respondents understood the vignettes and recognized the presence or absence of SDM. In the “No SDM” group, 22% (95% CI: 17–27%) of respondents reported that there was SDM, while for the “Brief SDM” and “Thorough SDM” groups this proportion was 89% (95% CI: 83–93%) and 94% (95% CI: 91–97%). Measurement via the SDM-9 concurred, with mean scores of 36/100, 78/100, and 84/100 respectively (95% CI: 30–41%; 73–83%; and 79–88% respectively; $p < 0.01$ for between group differences for all three groups). Regarding the realism of the vignette, 70, 77, and 74% of each group agreed that the description of what the doctor said was realistic (95% CI: 65–75%; 72–82%; and 69–79% respectively, $p = 0.13$).

Main Results

Within the “No SDM” group, 41% of respondents reported that they were “somewhat” or “very likely” to contact a lawyer to discuss litigation; these percentages were 12% and 11% for the “Brief” and “Thorough SDM” groups, respectively. The OR for contacting a lawyer, comparing “Brief SDM” to “No SDM,” was 0.2 (95% CI: 0.12–0.31) and the OR for the same question, comparing “Thorough SDM” to “No SDM” was 0.17 (95% CI: 0.11–0.28).

That is, those participants exposed to any degree of SDM were 80% less likely to report a plan to contact a lawyer compared to those participants not exposed to SDM.

The differences between the “No SDM” group and both SDM groups were also present for other measures of dissatisfaction and perceived liability (Figure 2), however, there was no statistically significant differences between responses for the two SDM groups.

Perceived blame and fault

Responses regarding blame and fault were similar to primary outcome measures (Table 2). Fewer participants in the two SDM groups felt an error had occurred, fewer felt the doctor was at fault, and more felt the patient and the doctor shared responsibility for the outcome.

Rating of ED visit and physician

Overall ratings of the ED visit improved as the degree of SDM increased. This was also seen for the ratings of the physician’s communication skills (Figure 3).

Trust

Regarding the 5-item Trust-in-Physician scale, scores were significantly different between groups. Out of a possible 25 points, the “No SDM” group had a mean score of 11.2 points, and “Brief” and “Thorough” SDM had mean scores of 16.7 and 18.4 points, respectively (95% CIs: 9.7–12.7, 15.3–18.1, and 17–19.7 respectively, $p < 0.01$ for between group differences for all three groups).

Limitations

Our study has several limitations. First, we use hypothetical vignettes. Because of the difficulties in assessing the effect of SDM on actual lawsuits, we chose to use a hypothetical scenario with potential ED patients to assess reactions to an adverse event, an approach we have used before.¹⁹ By using vignettes and dialogues, we were able to randomize participants to controlled versions of a patient-clinician interaction and assess the likelihood of an outcome that is relatively rare. From an ethical perspective, we would have been unable to perform this study without using hypothetical vignettes. Additionally, previous research on the use of “analogue patients” (vignettes) has concluded that this method is valid and reliable for gathering patient perception data.^{22,26}

Our method assumes that patients’ responses to our scenarios are at least somewhat predictive of what their real behavior would be in the same situation, but this cannot be fully known. Psychology literature, including a meta-analysis of over 80,000 subjects, demonstrates a positive correlation between intention and behavior.²⁷ They also note that the “intention-behavior gap” (the times when intention and behavior do not match) is due much more to “inclined abstainers” – those who self-report intention but don’t do the behavior – than those who report no intention, and then do the behavior. A systematic review of clinicians’ intentions and behavior supports this notion.²⁸ Taken as a whole, while it is possible or even likely that the proportion of participants who would sue reported in this

study is different than would be seen in reality, the direction of the difference caused by SDM is likely accurate.

Additionally, whether a patient considers suing doesn't alone predict whether a lawsuit will be brought against a physician, as numerous other factors influence whether a case goes forward. Furthermore, the demographic characteristics of the Mturk responders suggest that they have higher educational attainment and better health, as compared to patients surveyed recently in a multi-site survey of urban EDs, suggesting a higher mean socio-economic status.²⁹ Evidence suggests patients with lower socio-economic status sue physicians less frequently, but it is unknown whether the effects of SDM on liability would be as robust in a different population.³⁰ While the Mturk population may not have been in the same mindset as ED patients, the large majority report an ED visit, and 3% report having filed a claim or suit against a healthcare provider.

Lastly, our study only assessed one scenario and one setting – missed appendicitis in the ED – and our findings may not generalize to other scenarios in the ED or other settings. While it is unclear whether the effects of SDM would endure for a more dramatic adverse outcome, 3% of the participants in this study do report filing a claim or a lawsuit against a healthcare provider. This is quite a bit higher than reported rates of lawsuits, which have been estimated to be related to 0.001 and 0.03% of all hospital visits, suggesting that this group of participants was an appropriate cohort for testing whether an intervention changed litigiousness.^{11,31}

Discussion

This is the first large study to assess whether the use of SDM confers medicolegal protection in the setting of an adverse outcome. Although intent as reported on a survey does not always predict behavior, our results suggest that the use of SDM confers medicolegal protection in the event of an adverse outcome. The consistent dose-response curve seen in our secondary outcomes (Figure 3 and Trust-in-physician scale) is further evidence of the effect of SDM on the outcomes measured.

Our results are consistent with those of a similar experimental study by Barry et al., assessing hypothetical jurors' attitudes towards malpractice in a case involving a decision-aid for prostate cancer screening.³² Rather than using hypothetical jurors, we felt that asking potential patients to be respondents was more relevant to our question, as avoiding a lawsuit altogether is more relevant to both physicians and patients than the success or failure of litigation.

We used practicing clinicians to create realistic scenarios and attempted to balance the actual content of information exchanged. The “No SDM” and the “Brief SDM” scenarios were equivalent in their informational contents. Therefore, differences found are not due to *amount* of information exchanged. All participants went on to have an unfavorable outcome. Despite this, and the retrospective bias it created, significantly fewer participants in the groups who engaged in SDM expressed that they felt the doctor had made an error and was at fault. They reported higher marks for communication and greater trust. Similarly, the

“Brief SDM” and “No SDM” scenarios were the same length. While in reality, engaging a patient in SDM may take more time than explaining one’s decision (such as in the “No SDM” dialogue), our findings suggest that time spent in conversation was not the driving factor. It is notable that a conversation that was the same length and conveyed the same information had such notable differences in meaning to the participants as to elicit such different responses regarding blame and fault.

Our results support the assertion that SDM provides patient-centered care that is valued and appreciated by patients.^{2,33} Despite a bad outcome, the majority of participants who had “Thorough SDM” reported they would “probably” or “definitely” recommend this ED, as compared to <8% of participants who did not receive SDM. Over 80% of them gave their doctor overall positive ratings, with >90% reporting the physician had good to excellent communication skills. For many participants, the positive effects of the SDM managed to overcome the negative effects of the adverse outcome in terms of their relationship with the doctor. Though multiple studies have shown that uncertainty can negatively affect patients’ perceptions – such as increasing decisional conflict and decreasing trust, our study suggests SDM may mitigate this.³⁴ When accompanied by clear options, participants rated physicians as more trustworthy when uncertainty was conveyed clearly in the context of SDM. The demonstrated effects on physician trust, even in the setting of an adverse outcome, have potential downstream consequences for patients’ overall trust in physicians and the healthcare system, and may meaningfully benefit future care and adherence. This may indicate that SDM could be particularly powerful in the setting of ED care, when patients have no prior relationship with their physicians.³⁵ This may reflect the true promise of SDM: that a conversation has the power to connect two strangers in a way that not only improves understanding, but increases trust and empowers patients.³⁶

Our findings are consistent with previous research: the majority of patients want to be involved in medical decision-making, even in emergency care.^{29,35} A minority of patients felt that the physician should have made the decision to obtain a CT scan unilaterally, even when hindsight suggested that in deciding together, the decision led to an adverse event.

In the context of what is known about why patients initiate litigation, our findings are not surprising. Numerous studies have shown poor communication to be associated with patient complaints and litigation.^{37–42} Recent studies in EM have failed to find physician characteristics that lead to increased litigation, other than simply volume of patients seen.¹¹ While this study is by no means conclusive regarding the relationship between SDM and malpractice, high-quality empiric data is not likely to be forthcoming, as SDM is variably used and variably documented. Rather than focusing on the effects of SDM on liability, physicians and researchers should work to promote clinical care that is rational and inclusive of patients’ preferences. In summary, the desire to avoid litigation should not be the underlying rationale for using SDM.⁴³ This patient-centered practice should be promoted and implemented because of its ethical foundation in respect for patient autonomy. Our study should ease concerns that using SDM will increase litigation, and support the ethical and patient-centered basis for SDM. “People don’t remember what you said, they remember how you made them feel.”⁴⁴ This study suggests that the feelings imparted by even a brief SDM conversation were significantly different than those felt when SDM are not used, and

this translated to a number of important downstream effects. The positive and patient-centered interaction of SDM – called “a human expression of care that is careful and kind” – appears to have mitigated the negativity of the adverse outcome.³³ Physicians should be aware that respectful and patient-centered communication may be medicolegally protective in the event of an adverse outcome.

Supplementary Material

Refer to Web version on PubMed Central for supplementary material.

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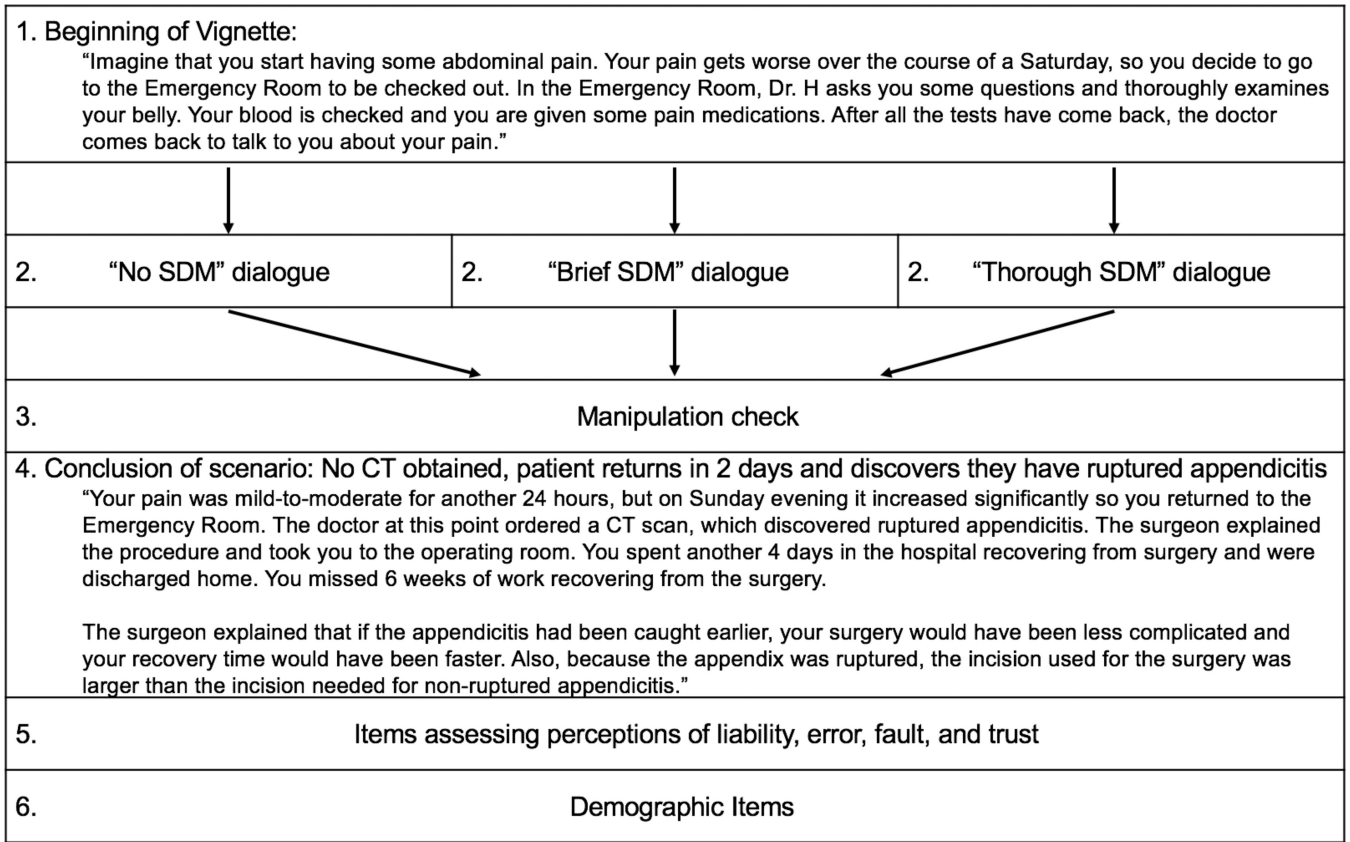


Figure 1. Components of the questionnaire presented to participants (Full questionnaire and dialogues in Supplements A-D). A manipulation check is a test used to determine the effectiveness of a manipulation in an experimental design. In this case, several questions assessed the participants' perception of the degree of SDM presented.

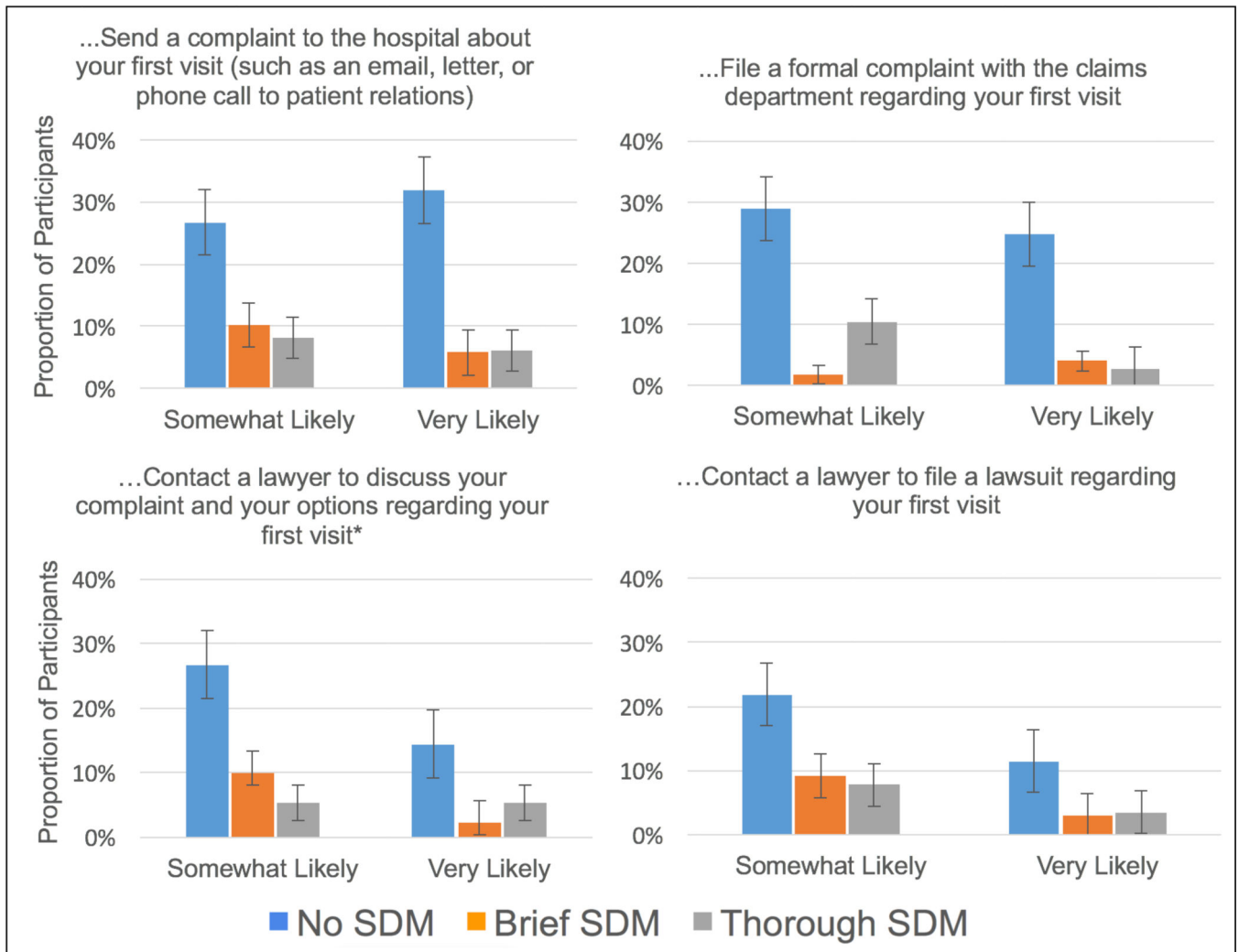


Figure 2. Participants’ responses to “How likely would you be to...”
 *Represents primary outcome; Bars represent 95%CI

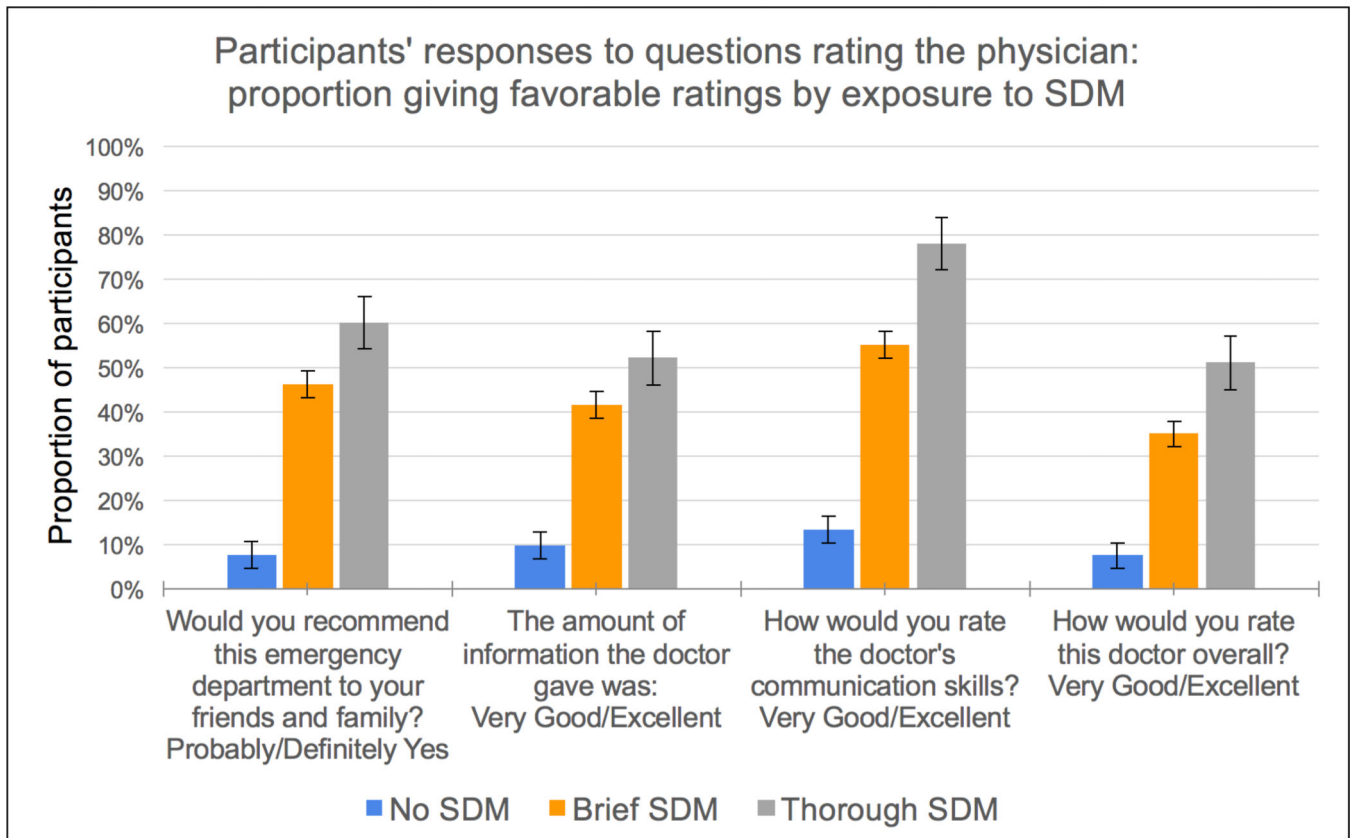


Figure 3. Participants' responses to questions rating the ED and physician
 Bars represent 95% CI

Table 1.

Participant characteristics

Characteristic	No SDM n=270	Brief SDM n=274	Thorough SDM n=260
Age mean (median)	36.0 (33)	35.0 (32)	36.2 (34)
Gender n (%)			
Male	141 (52.6)	150 (54.9)	139 (53.7)
Female	126 (47.0)	120 (44.0)	118 (45.6)
Non-binary/third gender	0 (0.0)	3 (1.1)	2 (0.8)
Race/Ethnicity n (%)			
White	205 (75.9)	219 (79.9)	206 (79.2)
Black	24 (8.9)	24 (8.8)	24 (9.2)
Asian	20 (7.4)	18 (6.6)	17 (6.5)
Multiracial	10 (3.7)	5 (1.8)	6 (2.3)
American Indian or Alaska Native	2 (0.7)	4 (1.5)	1 (0.4)
Other	4 (1.5)	2 (0.7)	4 (1.5)
Prefer not to answer	5 (1.9)	2 (0.7)	2 (0.8)
Ethnicity n (%)			
Not Hispanic or Latino	245 (91.8)	228 (83.5)	221 (86.7)
Hispanic or Latino	15 (5.6)	39 (14.3)	29 (11.4)
Prefer not to answer	7 (2.6)	6 (2.2)	5 (2.0)
Primary Language n (%)			
English	263 (98.5)	267 (98.5)	251 (97.7)
Spanish	2 (0.7)	0 (0.0)	1 (0.4)
Chinese	1 (0.4)	1 (0.4)	2 (0.8)
Other:	1 (0.4)	3 (1.1)	3 (1.2)
Education n (%)			
4-year college degree	105 (39.3)	108 (39.7)	91 (35.4)
Some college or 2-year degree	103 (38.6)	88 (32.4)	90 (35.0)
High school graduate or GED	33 (12.4)	41 (15.1)	40 (15.6)
More than 4-year college degree	24 (9.0)	33 (12.1)	35 (13.6)
Some high school, but did not graduate	1 (0.4)	1 (0.4)	1 (0.4)
Prefer not to answer	1 (0.4)	1 (0.4)	0 (0.0)
Employment Status n (%)			
Employed, working 40+ hours per week	161 (60.1)	191 (70.0)	165 (64.0)
Employed, working 1–39 hours per week	57 (21.3)	40 (14.7)	47 (18.2)
Not employed, looking for work	16 (6.0)	13 (4.8)	17 (6.6)
Not employed, NOT looking for work	6 (2.2)	10 (3.7)	9 (3.5)
Student	10 (3.7)	5 (1.8)	10 (3.9)
Retired	8 (3.0)	5 (1.8)	6 (2.3)
Disabled, not able to work	6 (2.2)	4 (1.5)	2 (0.8)

Characteristic	No SDM n=270	Brief SDM n=274	Thorough SDM n=260
Prefer not to answer	4 (1.5)	5 (1.8)	2 (0.8)
Have you ever worked in healthcare? n (%)			
Yes	36 (13.5)	42 (15.5)	47 (18.1)
Have you ever worked in law or the legal system? n (%)			
Yes	9 (3.4)	22 (8.1)	20 (7.8)
What was your total household income last year? n (%)			
Less than \$25,000	46 (17.2)	50 (18.3)	57 (22.0)
\$25,000 to \$34,999	45 (16.8)	40 (14.7)	37 (14.3)
\$35,000 to \$49,999	54 (20.1)	55 (20.1)	43 (16.6)
\$50,000 to \$74,999	58 (21.6)	69 (25.3)	61 (23.6)
\$75,000 to \$99,999	34 (12.7)	30 (11.0)	27 (10.4)
\$100,000 to \$149,999	20 (7.5)	16 (5.9)	19 (7.3)
\$150,000 or more	5 (1.9)	9 (3.3)	11 (4.2)
Prefer not to answer	6 (2.2)	4 (1.5)	4 (1.5)
Have you ever been to an Emergency Room in the United States as a patient or friend/family member of a patient? n (%)			
Yes	236 (88.4)	240 (88.9)	220 (85.6)
How many times have you been to an Emergency Room in the past year? n (%)			
Zero	161 (60.1)	171 (62.6)	164 (63.3)
One to two	94 (35.1)	81 (29.7)	86 (33.2)
Three to five	12 (4.5)	18 (6.6)	7 (2.7)
Six or more	1 (0.4)	3 (1.1)	2 (0.8)
How would you rate your overall health? n (%)			
Excellent	36 (13.5)	41 (15.0)	49 (18.9)
Very Good	100 (37.5)	107 (39.2)	87 (33.6)
Good	89 (33.3)	91 (33.3)	93 (35.9)
Fair	37 (13.9)	30 (11.0)	26 (10.0)
Poor	5 (1.9)	4 (1.5)	4 (1.5)
Type of insurance n (%)			
Private or Commercial	148 (56.8)	156 (57.6)	150 (59.5)
Medicaid or another insurance plan through your state	46 (17.6)	68 (25.1)	45 (17.9)
Medicare (usually for people over age 65 or disabled)	16 (6.1)	12 (4.5)	15 (6.0)
No insurance	50 (19.2)	32 (11.8)	40 (15.9)
Other:	1 (0.4)	3 (1.1)	2 (0.8)
Have you ever filed a claim or lawsuit of any sort against a doctor or other health care provider? n (%)			
Yes	3 (1.1)	10 (3.7)	12 (4.7)
Have you had an experience, either as a patient or as a friend/family member of a patient, in a medical scenario similar to this example? n (%)			
Yes	68 (25.4)	56 (20.5)	53 (20.6)

Table 2.

Responses regarding blame and responsibility

Question	No SDM n (%)	Brief SDM n (%)	Thorough SDM n (%)	Odds Ratios
In this scenario, who made the decision NOT to get a CT on the first visit?				
The patient alone	6 (2.2)	43 (15.8)	66 (25.4)	No SDM vs Brief: OR 0.03 (95%CI: 0.02–0.05) No SDM vs Thorough: OR 0.04 (95%CI:0.03–0.07)
The physician alone	235 (87.0)	14 (5.1)	5 (1.9)	
The physician and the patient together*	26 (9.6)	211 (77.6)	184 (70.8)	
I'm not sure	3 (1.1)	4 (1.5)	5 (1.9)	
In your opinion, for a decision like this, who should make the decision?				
The patient alone	8 (3.0)	19 (7.0)	28 (10.8)	No SDM vs Brief: OR 1 (95%CI: 0.7–1.6) No SDM vs Thorough: OR 1.6 (95%CI: 1.1–2.4)
The physician alone	31 (11.5)	33 (12.2)	44 (17.0)	
The physician and the patient together*	212 (78.5)	208 (77.0)	179 (69.1)	
I'm not sure	19 (7.0)	10 (3.7)	8 (3.1)	
In your opinion, not ordering a CT at the first visit was:				
Not a medical mistake	24 (8.9)	69 (25.4)	98 (37.8)	No SDM vs Brief: OR 3.6 (95%CI: 2.6–5) No SDM vs Thorough: OR 4 (95%CI: 2.8–5.8)
A minor medical mistake	68 (25.3)	109 (40.1)	78 (30.1)	
A serious medical mistake *	177 (65.8)	94 (34.6)	83 (32.0)	
The doctor in this case made an error.				
Agree/Somewhat Agree *	234 (86.7)	124 (35.4)	86 (33.3)	No SDM vs Brief: OR 7.8 (95%CI: 5.1–12) No SDM vs Thorough: OR 13 (95%CI: 8.5–20)
Neutral	13 (4.8)	56 (20.5)	39 (15.1)	
Somewhat Disagree/Disagree	23 (8.5)	93 (34.1)	134 (51.7)	
The doctor in this case was at fault.				
Agree/Somewhat Agree *	222 (82.5)	95 (34.9)	75 (28.9)	No SDM vs Brief: OR 8.8 (95%CI: 5.8–13) No SDM vs Thorough: OR 11 (95%CI: 7.7–17.6)
Neutral	28 (10.4)	60 (22.1)	46 (17.7)	
Somewhat Disagree/Disagree	19 (7.1)	117 (43.0)	139 (53.5)	
The patient in this case was at fault.				
Agree/Somewhat Agree *	32 (11.8)	77 (28.3)	84 (32.3)	No SDM vs Brief: OR 0.5 (95%CI: 0.3–0.8) No SDM vs Thorough: OR 0.4 (95%CI: 0.25–0.63)
Neutral	31 (11.5)	62 (22.8)	55 (21.2)	
Somewhat Disagree/Disagree	127 (76.7)	133 (28.9)	121 (46.6)	
In this case, the patient and the doctor share the responsibility for the outcome.				
Agree/Somewhat Agree *	32(11.8)	165 (60.4)	166 (63.9)	No SDM vs Brief: OR 0.09 (95%CI: 0.06–0.14) No SDM vs Thorough: OR 0.07 (95%CI:0.05–0.12)
Neutral	39 (14.4)	49 (17.9)	44 (16.9)	
Somewhat Disagree/Disagree	199 (73.7)	59 (21.7)	50 (19.2)	

* Odds Ratios presented are based on pairwise comparisons for responses denoted by