

## What is the profile of patients thinking of litigation? Results from the hospitalized and outpatients' profile and expectations study

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### Abstract

**Background:** Patients vary considerably in their intentions to pursue legal action following a medical error. The aim of this study was to explore predictors of litigious intentions in both hospitalized patients and outpatients, determining the relative influences of patients' characteristics, help-seeking behavior, information-seeking attitudes and general health status factors.

**Methods:** A representative cross-section of the urologic clinic of a general academic hospital and the associated outpatient clinic was used (a total of 226 patients, 145 outpatients). Data were gathered using in-person interviews conducted by trained psychologists. Attitudes were assessed by "General statements about medical errors", while expectations for information by "Krantz's Health Opinion Survey" (KHOS).

**Results:** A single multivariate model explained 21.5% of the variance of litigious intentions. Younger age (explained 7.6% of the variation,  $p=0.04$ ), weaker relationship with religion (4%,  $p=0.02$ ), less than 15 visits/year to any physician (7.2%,  $p=0.001$ ), outpatient status (2.4%,  $p=0.02$ ), and higher expectations for information were associated with higher possibility to consider suing their physician (7.6%,  $p=0.002$ ). Patients' desire for disclosure of a medical error (agreement in 82.2%) exceeded their expectations for financial compensation, particularly in less severe cases (agreement in 24.1%).

**Conclusions:** This is the first report on the profile of patients with high potential for malpractice suits as predicted by patients' age, relationship with religion, health-seeking and information-seeking behavior. Respecting patients' need for information during clinical consultations and proceeding to disclosure of medical errors, when they occur, seems to be not only the more patient-centered approach, but also the best way to lessen the likelihood of a claim. Hippokratia 2014; 18 (2):139-143.

**Keywords:** Malpractice, medical error, litigious intentions, patient-centered, disclosure

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### Introduction

Practicing physicians face significant potential exposure to malpractice claims, with inevitable personal and occupational consequences<sup>1</sup>. Litigation concern is currently reinforced by a significant increase in indemnity payments during the last decades<sup>2</sup>. Although medical errors occur in almost 1% of hospitalized patients, less than 2% of these cases are likely to be resolved in court<sup>3</sup>. Patients vary considerably in their intentions to pursue legal action, but this variation has received little research attention, particularly in Europe<sup>4-7</sup>.

Patients' factors previously associated with malpractice intentions include higher education<sup>6</sup>, being affluent<sup>6</sup>, female gender<sup>7</sup>, younger age<sup>8</sup>, chronic pain<sup>4</sup>, being in rehabilitation<sup>4</sup>, and being upset with their health<sup>4</sup>. The concept of patients with a lower threshold for filing a lawsuit has been previously suggested<sup>5</sup>. Our study was designed to assess whether this is supported by evidence of asso-

ciation with patient's characteristics, including patient's desire for autonomy and patient-centered approach.

The aim of our study was to explore factors associated with patients' litigious intentions and to determine the relative influence of demographic and psychosocial characteristics, help-seeking behavior, information-seeking attitudes and general health status factors.

### Methods

#### *Study design*

A representative cross-section of the urologic clinic and the associated outpatient clinic of a large General Hospital, receiving referrals from an area of two million people was used. The study was designed to recruit equal numbers of subjects in each of six design cells defined by age (18-40, 41-60, 61-80 years) and gender. Table 1 presents frequencies of subjects by age group within gender. One hundred twenty one (out of the 266, 45.5%)

**Table 1:** Distribution of subjects by age group within gender.

Age	Patients	
	Men	Women
18-40 years	52 (32.3%)	26 (24.8%)
41-60 years	57 (35.4%)	41 (39.0%)
61-80 years	52 (32.3%)	38 (36.2%)

\*Percentages are column percentages and may not sum to 100.0% due to rounding.

patients were hospitalized. The study was part of a larger hospital-based survey, the Hospitalized and Outpatients' Profile and Expectations Study (HOPES).

The inclusion criteria were individuals above 18 years old, willing and competent to sign the informed consent. All interviews were completed on admission day for the hospitalized patients and before their consultation for the outpatients. Patients with debilitating health status were excluded from the study. The study was approved by the institution's Scientific Research Board.

#### Data collection

Data were obtained during a 2-hour in-person interview, conducted by a trained psychologist in a clinic office. Following signed informed consent, information on attitudes towards information giving and caring in physician-patient relationship, psychosocial characteristics, treatment-seeking behavior, health status and demographics were obtained. All the psychologists that conducted the interviews were trained and monitored in all procedures.

#### Outcome measures

Attitudes towards medical errors were explored by the 9-item scale "General statements about medical errors"<sup>9</sup>. Five response options were provided ranging from "strongly disagree," to "strongly agree". In order to describe litigious intentions subjects were asked "Would you ever sue your doctor?" and they were given three choices for answering: "yes", "maybe", or "no".

#### Covariates

Covariates included: Demographics (gender, age, education and household income), relationship with religion, Health Status and Care [worry about health status, subjective health status, type of patient (in- versus out-patient), co-morbidities, number of visits in health care providers the previous year]. Psychosocial factors such as Health Locus of Control, Health optimism and Social Support were considered. Expectations for information by the physician were measured by Information subscale of Krantz's Health Opinion Survey (KHOS)<sup>10</sup>.

#### Statistical analysis

Statistical analyses were conducted using version 9.2 of SAS and 10.0.1 of SUDAAN. Missing data were replaced by plausible values using multiple imputations. Covariates meeting a minimal criterion for association with litigious intentions ( $p \leq 0.20$ ) were organized into

groups. Smaller multivariate logistic regression models containing the variables within a group were tested ( $p \leq 0.10$ ). All variables in these models were placed into a single multivariate model. Backwards stepwise elimination of non-significant covariates was performed on these models using a stronger criterion for association ( $p \leq 0.05$ ). Generalized  $R^2$  was used to measure the percent of variance explained by each of the groups of variables.

## Results

### Descriptive statistics

Two hundred sixty six patients were interviewed (121 inpatients, 145 outpatients). One hundred fifty (56.4%) patients declared they would never sue their doctor. Table 2 presents the demographic characteristics, perceived relationship with religion, current health status, number of health care visits per year and the scales used to describe psychosocial factors and attitudes towards physician-patient relationship of the participants, all with regard to their litigious intentions.

Detailed information on patients' attitudes towards medical errors is presented in Table 3.

### Multivariate logistic regression on litigious intentions

The components of the model that emerged (Table 4) explained 21.5% of variance measured by pseudo- $R^2$ . The covariates were: age (explained 7.6% of the variation), relationship with religion (4.0%), health status and care [in- versus out-patient (2.4%)], number of times visited a doctor per year (7.2%), and doctor-patient communication [KHOS (7.6%)]. Older patients, patients declaring a stronger relationship with religion, hospitalized patients and people visiting their doctor 15 or more times per year were less likely to think of pursuing legal action. Moreover, patients with higher desire for information from their physician were also more likely to report litigious intentions.

## Discussion

We report findings of the first study on patients' litigious intentions and attitudes towards malpractice and medical errors in a European hospital and outpatient setting. A high overall likelihood of suing the physician was demonstrated among patients. The model that emerged indicates that older patients, with a more religious disposition and the most frequent users of the health care system are less likely to report litigious intentions. Conversely, being an outpatient and having higher expectations for information during the medical consultation

**Table 2:** Urologic sample descriptive statistics with regard to their litigious intentions (n=266).

Subgroup Demographics	Variables	Levels	Would You Sue Doctor?		p <sup>†</sup>
			No (n=116)	Yes/Maybe (n=150)	
Demographics	Gender	Male	67 (41.6%)	94 (58.4%)	0.42
		Female	49 (46.7%)	56 (53.3%)	
	Age	18-40 years	19 (24.4%)	59 (75.6%)	<0.001
		41-60 years	44 (44.9%)	54 (55.1%)	
		61-80 years	53 (58.9%)	37 (41.1%)	
	Education, years	Mean ± SE	9.3 ± 0.4	11.7 ± 0.4	<0.001
Household income per month	<1,000 euro	48 (50.2%)	48 (49.8%)	0.14	
	1-2,000 euro	50 (42.8%)	66 (57.2%)		
	>2,000 euro	18 (33.8%)	36 (66.3%)		
Religion	Relationship with religion is:	None-medium	25 (32.1%)	53 (68.0%)	0.004
		Good	37 (40.2%)	55 (59.8%)	
		Excellent	54 (56.3%)	42 (43.8%)	
Health Status and Care	Worry about your health problem?	Not at all	17 (42.5%)	23 (57.5%)	0.46
		Very	28 (45.2%)	34 (54.8%)	
Psychosocial Factors	How many times have you visited a health care provider?	1-4	32 (42.1%)	44 (57.9%)	<0.001
		5-9	21 (30.4%)	48 (69.6%)	
		10-14	17 (34.0%)	33 (66.0%)	
		15+	46 (64.8%)	25 (35.2%)	
	Inpatient	Yes	63 (52.1%)	58 (47.9%)	0.01
	No	53 (36.6%)	92 (63.5%)		
Psychosocial Factors	Health internal LoC	Mean ± SE	2.9 ± 0.1	2.9 ± 0.1	0.88
	Health optimism	Mean ± SE	2.6 ± 0.1	2.7 ± 0.1	0.50
	Health efficacy	Mean ± SE	3.0 ± 0.1	2.9 ± 0.1	0.20
	Perceived emotional support	Mean ± SE	14.5 ± 0.2	14.0 ± 0.2	0.09
	Perceived instrumental support	Mean ± SE	14.8 ± 0.2	14.3 ± 0.2	0.11
Dr-Patient Communication	Krantz's Health Opinion Survey (KHOS)	Mean ± SE	1.9 ± 0.2	3.0 ± 0.2	<0.001

Percentages are row percentages, SE: standard error, <sup>†</sup>categorical variables were analyzed using chi-square tests while continuous variables were assessed with a Wald-type F test.

were associated with higher likelihood of suing.

The major strength of this study is that it is the first to consider a wide range of factors possibly associated with litigious intentions, including demographics, relationship with religion, help-seeking behavior, current health status, psychosocial state and attitudes towards patient-centered care. It is also the first study to explore patient perceptions and attitudes towards malpractice in a sample of European patients, both hospitalized and outpatients.

Our findings demonstrated that age and relationship with religion explained a significant proportion of the

variance in litigious intentions. We confirmed the association of older age with lower intentions, which being in line with previous findings from New Zealand<sup>8</sup>. Degree of religious adherence has not been previously studied in this context. The positive association observed in our study could be due to the use of specific coping strategies in patients with higher religious adherence<sup>11</sup>. For more religious patients, a medical error could be viewed as a test of faith, which needs to be addressed by trusting their physician and activating religious faith in healing, while the physician may be seen as an instrument of divine

**Table 3:** Percentage [95% Confidence Interval (CI)] of Medical Error items.

	<b>Agreement (95% CI), %*</b>
Patients should always be told if an error is made – even if the patient is not injured or harmed.	82.2 (76.8-86.5)
Patients should get financial compensation if they were injured or disabled because of a medical error.	67.4 (61.0-73.2)
It is realistic to expect that doctors will make errors.	75.9 (70.1-80.9)
Patients should take some responsibility for preventing errors.	46.7 (40.4-53.0)
Patients have the right to expect that their doctors will not make errors.	75.8 (69.9-80.8)
It's unrealistic to think that a doctor would tell a patient if he or she made an error in the patient's care.	55.8 (49.5-62.0)
In some situations, it would be best not to tell a patient about a medical error.	36.0 (30.0-42.4)
Patients should get financial compensation if an error was made, even if they were not injured or disabled because of it.	24.1 (19.2-29.9)
There is no point in knowing if an error was made if there's nothing that can be done about it.	32.8 (27.3-38.9)

\* Percentages reflect number responding "agree" or "strongly agree" divided by number of responses (266)

**Table 4 :** Multivariate logistic regressions on suing your doctor (yes/maybe vs. no).

			<b>Would You Sue Doctor?</b>		
<b>Subgroup</b>	<b>Variables</b>	<b>Levels</b>	<b>OR</b>	<b>95% CI</b>	<b>p-value</b>
<b>Demographics</b>	<b>Age</b>	18-40 years	ref.	--	0.04
		41-60 years	0.56	(0.26, 1.20)	
		61-80 years	0.36	(0.16, 0.78)	
<b>Religion</b>	<b>Your relationship with religion is:</b>	None - Medium	ref.	--	0.03
		Good	0.69	(0.34, 1.41)	
		Excellent	0.39	(0.20, 0.78)	
		<b>Type of patient</b>	Inpatient	0.52	(0.30, 0.91)
Outpatient	ref.		--		
<b>Health Status and Care</b>	<b>How many times have you visited a health care provider?</b>	1-4	ref.	--	0.001
		5-9	1.57	(0.75, 3.29)	
		10-14	1.51	(0.63, 3.62)	
		15+	0.35	(0.16, 0.75)	
<b>Dr-Patient Communication</b>	<b>KHOS</b>		1.31	(1.11, 1.55)	0.002

OR: Odds Ratio; CI: Confidence Interval, ref.: reference category.

will<sup>11,12</sup>. In contrast to previous studies<sup>6,7</sup>, our findings did not confirm demographic characteristics such as sex, educational level and economic status as predictors.

Our findings indicate that the number of visits to a physician during the past year and the medical status of inpatients or outpatients are predictive of litigious intentions. Patients whose health requires close medical supervision, or scheduled hospital admissions may experience greater dependence on their physicians and accordingly feel less inclined to sue them. In fact, our finding that hospitalized patients are less likely to sue is in contrast to findings from an earlier US study<sup>13</sup>. That could be possibly attributed to the fact that on the first day of their admission, they may adopt more positive attitudes towards their hospital stay or it may imply cultural differences between Americans and Greek patients.

A finding of note was that patients with greater expectations of receiving information during doctor-patient consultation are more likely to consider suing their physician. This finding underlines the importance of receiving informed consent for all medical procedures, after adequate informing, which has been previously reported as an important determinant in indemnities<sup>14</sup>. Although our study was the first to include patients' expectations as a covariate in a multivariate model, the importance of doctor-patient communication has been implied in the past, indicating that failures are crucial in the decision to proceed in suing<sup>15-17</sup>.

Patients' overall attitudes towards medical errors confirmed their high degree of need for accurate information, since the majority declared they should always be informed about the occurrence of a medical error, "even

if the patient is not injured or harmed". Interestingly, patients' desire for disclosure exceeds their expectations for financial compensation. Although most patients prefer to think that their physicians would not make an error, they accept the common notion that "to err is human". Our findings are comparable with those of the United States study that first used the same questions to measure expectations regarding medical errors<sup>9</sup>, implying that patients' attitudes towards medical errors are similar across western cultures. Disclosure is currently considered the right thing to do, which decreases malpractice risk and is expected to lead to an improvement in the quality and safety of care<sup>18</sup>.

Some limitations may affect the interpretation of our findings. First, the model that emerged explains one fifth (21%) of the variation in litigious intentions. This proportion is considered satisfactory, since our study focused only on patient characteristics and did not investigate other factors such as those related to patient-physician interaction which could further explain variance. Another limitation could be that the participants were selected from a urology setting. However, since a) patients' characteristics evaluated in this study were not specifically relevant to urologic problems, b) the participants had a number of comorbidities and c) the study recruited almost equal numbers of males and females across three age groups, our results could have implications in other settings.

### Conclusion

Our findings provide evidence of a patients' profile with a "lower threshold" for considering malpractice litigation, including younger age, lower degree of religiosity, low frequency of health care visits, outpatient status and higher expectations for information from the physician. Within the context of increasing malpractice litigation, adopting a more patient-centered practice routinely becomes more vital than ever before. Patients declare that they expect from their physicians to respect their needs for information during clinical consultations and open disclosure of medical errors- whenever they might occur. Timely and empathetic disclosure of medical errors is essential to maintain trust and is an important part of patient-centered care<sup>19</sup>. Physicians are invited to adopt a more patient-centered approach, expecting numerous beneficial outcomes, including higher satisfaction and adherence, better health outcomes, but also decrease in the likelihood that their patients might develop litigious intentions.

### Conflict of interest

The authors declare no conflict of interest.

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