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Patient Perceptions of Mistakes in Ambulatory Care

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Abstract

CONTEXT—Little information exists about current patient perceptions of medical mistakes in ambulatory care within a diverse population.

OBJECTIVES—To learn about adults' perceptions of mistakes in ambulatory care, what factors were associated with perceived mistakes, and whether or not the respondents changed physicians because of these perceived mistakes

DESIGN—Cross-sectional survey conducted in 2008

SETTING—Seven primary care medical practices in North Carolina

PARTICIPANTS—One thousand six hundred ninety-seven English or Spanish speaking adults, aged 18 and older, who presented to a medical provider during the data collection period.

MAIN OUTCOME MEASURES—1) Has a doctor in a doctor's office ever made a mistake in your care? 2) In the past 10 years, has a doctor in a doctor's office made a wrong diagnosis or misdiagnosed you? (If yes, how much harm did this cause you?) 3) In the last 10 years, has a doctor in a doctor's office given you the wrong medical treatment or delayed treatment? (If yes, how much harm did this cause you?) 4) Have you ever changed doctors because of either a wrong diagnosis or a wrong treatment of a medical condition?

RESULTS—Two hundred sixty-five participants (15.6%) responded that a doctor had ever made a mistake, 13.4% reported a wrong diagnosis, 12.4% reported a wrong treatment, and 14.1% reported having changed doctors because of a mistake. Participants perceived mistakes and harm in both diagnostic care and medical treatment. Patients with chronic low back pain, higher levels of education, and poor physical health were at increased odds of perceiving harm, whereas African-Americans were less likely to perceive mistakes.

CONCLUSIONS—Patients perceived mistakes in their diagnostic and treatment care in the ambulatory setting. These perceptions had a concrete impact on the patient-physician relationship, often leading patients to seek another health care provider.

INTRODUCTION

Since the Institute of Medicine's publication of "To Err is Human: Building a Safer Health System"[1], attention to errors and mistakes in health care has increased dramatically. Though the majority of research examining medical mistakes has focused on inpatient care, there is accumulating evidence that patients perceive mistakes and experience errors in their ambulatory care as well.[2-4]

By exploring patient perceptions of medical mistakes, physicians and the health care community can better understand patients' satisfaction with the current health care system. Though patient perceptions of mistakes likely encompass broader concepts than the strict definition of "medical error", the perceptions have been shown to impact care regardless of whether a true adverse event has occurred.[5-9] Indeed, research has shown that psychological and emotional harms often result from perceived mistakes whether or not they would be defined as errors or adverse events by the medical profession.[8] Perceptions of mistakes have been shown to play a role in patient satisfaction[10-12] which is linked to physician-trust and medication adherence.[13-15] Thus while patient perceptions of medical mistakes may not always represent true adverse events, they nonetheless may affect patient satisfaction, regimen adherence and other outcomes and, therefore, deserve study.

Little research has, however, looked at patient perceptions of medical mistakes in ambulatory care. The majority of the research in ambulatory care has focused on incident reports or malpractice claims,[16-19] a methodology that underestimates the prevalence of perceived mistakes. Small qualitative studies have also been published,[8, 20] as well as a few larger patient surveys, but these were conducted in fairly homogenous populations, such as HMO groups or academic settings.[5, 13, 21] One national telephone survey carried out in 1997 on behalf of the National Patient Safety Foundation found that 22% of 1,513 participants reported that a mistake had happened to themselves, a family member, or a close friend, while in a doctor's office. This study did not specifically look at types of mistakes, however, or how often patients changed their physicians because of these mistakes.[22] The largest and most rigorous study of the ambulatory care setting was conducted over ten years ago and focused only on patients' perceptions of adverse drug events rather than all medical mistakes.[23] There is therefore a lack of understanding of the current perceptions of medical mistakes in ambulatory care within a diverse adult population.

To address these deficits, we conducted a survey of a large, racially and socioeconomically diverse sample of adults about their perceptions of medical mistakes specifically in ambulatory care. Our aims were to learn about their perceptions of mistakes, to what extent the mistakes had caused perceived harm, what factors were associated with perceived mistakes, and whether or not the respondents changed physicians because of these perceived mistakes.

METHODS

Study Design

We conducted a survey in 2008 of seven primary care medical practices belonging to a practice-based research network[24] in North Carolina. Two were located in urban settings, one in a suburb, two in towns, and two in rural settings. Three were university-affiliated clinics, two were community health centers, and two were private practices. The 7 practices were chosen because their joint patient populations were racially and socioeconomically diverse.

Participants

Using a previously described method,[24] we placed 1 or 2 trained research assistants in the waiting room of each practice for 15 days, with instructions to offer study participation to all adults who presented to a medical provider (physician, nurse practitioner, or physician assistant) during the data collection period. Persons who were in acute distress or who could not comprehend the consent form were excluded. The research assistants approached eligible patients, obtained written consent, and offered assistance with survey completion

using methods approved by the Institutional Review Board of the School of Medicine of the University of North Carolina at Chapel Hill. Bilingual research assistants were placed in practices with significant Latino populations, and both English and Spanish versions of the consent form and questionnaire were available in all practices. A total of 1754 patients were recruited in this manner, at a recruitment rate of 64% of eligible patients. These analyses involved the 1697 people (96.8% of participants) who responded to the survey's screening question on medical mistakes.

Survey Design

In order to assess patients' perceptions of medical mistakes in the ambulatory care setting, we asked four main questions. These questions were designed to specifically focus on the care provided in the ambulatory setting. The questions were derived from published sources,[13, 17, 22, 25, 26] modified by the research team, and reviewed for content and face-validity by 10 primary care researchers. The term "mistake" was chosen over "medical error" as other studies have demonstrated patients' confusion around the term "medical error".[27 28] The questions were: 1) Has a doctor in a doctor's office ever made a mistake in your care? 2) In the past 10 years, has a doctor in a doctor's office made a wrong diagnosis or misdiagnosed you? (If yes, how much harm did this cause you?) 3) In the last 10 years, has a doctor in a doctor's office given you the wrong medical treatment or delayed treatment? (If yes, how much harm did this cause you?) 4) Have you ever changed doctors because of either a wrong diagnosis or a wrong treatment of a medical condition?

The four page study questionnaire included questions on participants' demographics, medical history, self-reported health, frequency of physician visits, and disability. General demographic information included age, gender, race/ethnicity, marital status, and level of education. Self-reported health was evaluated by asking participants to rate their health on a 5-point scale. Participants were asked to indicate their chronic illnesses from a list of 16 common conditions such as hypertension, cancer, diabetes mellitus, and low back pain. Disability was measured by participant report of days of limitations in activities due to either physical or mental health within the past 30 days.[29]

A random sample of participants responded yes to either of the questions about having a wrong diagnosis or a wrong treatment was selected for telephone interview by two researchers (either CK or a trained research assistant, HM). Of 82 participants selected, 59 had interviews completed, of which 52 were eligible for analysis. During these interviews participants were allowed to report on diagnostic mistakes, treatment mistakes, or both. Seven of the participants reported the same mistake as both a diagnostic and a treatment mistake because they felt they'd received improper treatment from an incorrect diagnosis. The decision was made to categorize those responses as reports of diagnostic mistakes only. We chose to exclude non-native English speakers from this sample in an effort to minimize interpretation issues. Furthermore, only five of the seven study sites were included in this portion of the study, because the other two sites had not been sampled at the time the interview sample was selected.

Statistical Analysis

Simple frequencies were used to describe the sample and responses to the four medical mistake questions. Bivariate comparisons were computed, relating whether participants had ever perceived a mistake in the ambulatory care setting with factors that have been previously demonstrated to affect healthcare utilization, including: selected chronic comorbid conditions,[30] health status, disability, race, age and gender.[5, 31]

To identify characteristics independently associated with having ever perceived a medical mistake in the ambulatory care setting, we then estimated a hierarchical multivariate regression model. Given the relatively small number of sites, a fixed hierarchical model, clustering participants by site, was used to control for confounding effects of site on our outcome of interest. We entered potential predictors whose bivariate associations with perception of medical mistake were significant at $p<0.15$. After entering the variables into the multivariate model, significant predictors were found using the backward selection technique. After the model was finalized, assessment of collinearity and interaction was performed. There was an almost significant interaction ($p=0.051$) between chronic back pain and report of any days spent in poor physical health but controlling for this interaction did not substantively change the findings, and so was excluded in the final model. Assessment of collinearity yielded no variance inflation factor greater than 1.86. The presence of significant interaction between predictors was assessed. Multiple imputation modeling to control for missing data yielded similar results. All descriptive analyses and hypothesis-testing were completed using STATA/SE 10.0 software.

RESULTS

Characteristics of Participants

The mean age of participants was 46 ± 16 years (range= 18-95). Sixty-eight percent of participants (n=1160) were female; 36% were African American; and 19% were Hispanic (Table 1). Educational attainment was widely distributed, with 47% having had some college or higher. Nearly half of participants (42%) reported high blood pressure; over one-quarter (27%) reported depression; and almost one-quarter (24%) reported chronic back pain. Thirty-nine percent reported their health as fair-to-poor, and over half (59%) reported having had at least one day in the past 30 days when their physical health was "not good".

Perceptions of Medical Mistakes

Two hundred sixty-five participants (15.6%) responded that a doctor had ever made a mistake in their care, 13.4% reported a wrong diagnosis, 12.4% reported a wrong treatment, and 14.1% reported having changed doctors because of a mistake. Only about four percent (n=74) said yes to all 4 questions. The severity of perceived harm was similar regardless of the type of mistake (Figure 1). Of the 218 participants who reported harm from a perceived diagnostic mistake, 42% reported "a lot" or "severe" harm. Of the 208 participants who reported harm from a perceived treatment mistake, 46% felt they had "a lot" or "severe" harm. A brief list of the 52 participants' interviews show a range of perceived mistakes and associated harms (Table 3).

Physician-patient communication and relationship issues were mentioned in all categories of harm. A participant described, "I went to the doctor, and they just told me that there was nothing wrong with me. There was something wrong with my belly, but they thought it was all in my head. They just mistreat people there, and they didn't care. I finally went to a University Hospital and I had endometriosis." Another participant related the story that "I've had two almost identical incidents where the same doctor called me after I'd had a routine stress test, and each time he said he thought I'd had a silent heart attack, but it turns out it was an old heart attack that I'd had like 10 years ago, but he didn't read my chart at all. When it happened the second time, I said that's enough, and I transferred over to another doctor that my wife was seeing. "

Some of the reported mistakes causing "none" or "a little" harm might be considered by health care professionals to be normal diagnostic or therapeutic challenges. For example, one participant reported: "I had a rash all over my legs and stomach and back. The doctor

said it was just an allergic reaction to something, but it wasn't getting better. I went to a dermatologist and found out that I had psoriasis." Another reported: "I had a sinus infection in the spring of 2007, and they gave me some low strength antibiotic and it did nothing well I was still feeling lousy and so I had to go through 3 iterations and on the 3rd try it finally got better".

Participants who reported "a lot" or "severe" harm from diagnostic or treatment mistakes appeared more likely to have had true adverse events. One participant reported: "I had a swollen lymph node under my arm, it was very tender, I went to my main doctor who sent me to a specialist and that doctor wanted to take off my breast. I wanted another opinion. I got one, and that doctor sent me for a mammogram and biopsy of the lymph nodes. It turned out I had 'cat scratch fever'". Another reported "I had my breast removed because of cancer. I had surgery and I had saline breast implants afterwards. The area got infected. It started as a pin hole and got bigger and bigger, and was just rotting away. It got so bad I had to put a towel in my bra because it was oozing so bad, but my doctor who did the surgery said it was going to be okay. Finally, my family persuaded me to get a second opinion. That second doctor took one look at me and took me right in for emergency surgery."

Fourteen percent (n=239) of participants reported changing physicians because of a perceived mistake. The majority (74%) of participants who reported "a lot" or "severe" harm from a diagnostic mistake (66 of 89 participants) changed their doctor, whereas about half as many (39%) of those who reported "none" or "a little" harm (26 of 66 participants) did so. Similarly, seventy-five percent of those who reported "a lot" or "severe" harm from a treatment mistake (71 of 94 participants) changed their doctor, while only 43% of those who reported "none" or "a little" harm (23 of 53 participants) changed doctors. Often participants reported that changing doctors was accompanied by a reluctance to discuss the mistake with the former doctor. As one participant reported, "I never talked to the same doctor again. If I told him, I don't think he would have taken it very well. I think he would have told me that I was wrong again."

Association Between Patient Characteristics and Report of Medical Mistakes

Several patient characteristics were found to be associated with increased odds of reporting a medical mistake. Approximately 19% of Caucasians reported perceiving a mistake versus about 13% for both African-Americans and Hispanics (Table 3). Educational attainment beyond high school increased the odds of perceiving a mistake two-fold ($p<0.001$). Participant report of any day in the past month in poor physical health was associated with a 2.2 increased odds of perceiving a mistake in their ambulatory care ($p<0.001$). Of note, the only medical condition to be associated with increased odds of perceiving a medical mistake was self-report of chronic back pain which was associated with a 1.5-fold increased odds of perceiving a mistake ($p=0.018$). Age and gender were not associated with perception of mistakes but were kept in the model for strong theoretical reasons. Depression, heart disease, report of any days in the past month in "not good" mental health, greater than 4 visits to a physician within the past year, and self-reported health of "fair" or "poor" were associated with perception of mistakes in bivariate analyses but these were not significant in the final model.

DISCUSSION

In this diverse primary care sample, 15% of participants perceived mistakes in the ambulatory care setting and 14% changed their physicians because of this fact. Participants perceived mistakes in both diagnostic care and medical treatment. Mistakes were perceived to have caused harm across the spectrum of severity. Around 8% of participants reported "a lot" or "severe" harm for either diagnostic and treatment mistakes. Factors that were

independently associated with a higher likelihood of reporting a mistake included higher levels of educational attainment, report of poor physical health, and chronic back pain, whereas African-Americans were less likely to perceive mistakes in their care.

This study, which included a large geographic area with urban and rural settings, as well as insured and uninsured groups of patients, found that perceptions of mistakes in ambulatory care are fairly widespread. Fifteen percent of our cohort reported a medical mistake, which is similar to 11% reported in the Solberg et al. study of patient perceptions of mistakes in ambulatory care conducted in 2005.[5] If an average physician sees 30 patients a day, as many as 4 to 5 of these patients will feel that they have experienced a mistake in their care at some point.

A significant minority of participants who reported mistakes felt they had suffered “a lot” or “severe” harm. This finding conflicts with published reports of adverse events, which have concluded that most do not cause serious harm.[32-34] It has been argued that not all mistakes are of concern, only those that cause, or have the potential to cause, harm.[35] However patients may perceive mistakes and harm and pursue litigation even over known treatment side effects and normal diagnostic and treatment challenges when patient-physician communication is poor.[36] A broader concept of mistakes and harm appears to be prevalent among patients, in which mistakes around such issues as communication about treatment side effects or normal diagnostic and treatment challenges can be perceived even when standards of care are met. These differences between patient and professional viewpoints of what qualifies as a medical mistake should be considered in any future research or policy making regarding medical errors.

Fourteen percent of participants changed their physicians because of a perceived mistake. This is somewhat higher than the 10% rate at which respondents to the National Patient Safety Foundation survey reported changing doctors because of perceived mistakes.[22] Changing physicians because of a perceived mistake is a valid measure of dissatisfaction with care and, therefore, could be a useful measure to employ in efforts to improve patient satisfaction in ambulatory clinics.[5]

The additional qualitative information gathered in our study supports prior work that perceived mistakes involve communication or relationship problems in addition to diagnostic or therapeutic errors. Similar conclusions have been reported by other qualitative studies.[8, 20] Kuzel et. al found that access and relationship issues were more commonly reported as perceived mistakes than technical issues such as misdiagnosis or improper medical treatment.[8] Combined with the fact that participants may have had trouble distinguishing diagnostic from treatment mistakes, as the 7 of our 52 qualitative surveys suggests, this broad view of mistakes may mean that prior typologies of errors[26] may not be as helpful in research on patient perceptions. Furthermore, our study participants frequently reported events such as medication trials or dermatologic diagnostic challenges that clinicians would consider normal diagnostic and/or treatment processes. Further cognitive interviewing about these frameworks is needed to see if these divisions in classification are applicable to patients’ perceptions. If this is indeed true, efforts to prevent true adverse events may not be sufficient to improve public perceptions of mistakes in the ambulatory care setting; the medical system may also need to improve the communication of expectations for care.

A practicing physician may find it useful to know which patients are at increased risk for perceiving mistakes in their care so they can more explicitly set expectations. Frequent utilizers of health care, due to complex disease or multiple comorbidities are clearly at increased risk of both true adverse events and perceived mistakes.[23, 37, 38] It makes sense

that chronic low back pain, which has a complex pathophysiology and may be therapeutically challenging would be a risk factor for a patient's perceiving a mistake. Others have found that low education and minority status conferred an increased risk of medical errors, a finding that conflicts with our study results. [38] This discrepancy may be due to the association of minority ethnicity and lower levels of education with increased patient satisfaction[39, 40] and low rates of complaints.[31] This suggests that perception of mistakes may be due to both true adverse events and patient expectation, a conclusion supported by published patient satisfaction models.[10, 41] Thus minorities may have lower expectations and therefore be less likely to perceive mistakes, while those with poor physical health or chronic conditions are still at increased odds due to their frequent utilization and the increased opportunity to experience an error.

While this study was limited to adult patients in primary care settings, it does represent a large, diverse state-wide sample. As all patients had a primary provider, these findings may not represent the perceptions of medical mistakes in patients without a primary care physician. However, the outcomes did focus on any perceived event in an ambulatory care setting, and are not limited solely to perceptions of primary care. As no review of the various medical records of our study participants was performed, no comparison data on documentation of reported events was available. Similarly, as this research was patient-focused, no assessment at the site level was performed other than recording the site itself.

In summary, this study is the first large diverse cross-sectional survey of patients' perceptions of medical mistakes in the ambulatory care setting. In addition, it quantifies the impact of these perceptions in terms of perceived harm and decisions to change physicians. Our results indicate that patients with chronic low back pain, higher levels of education, and poor physical health are at increased odds of perceiving harm, across a wide range of ambulatory care settings. These perceptions have a concrete impact on the patient-physician relationship, often leading patients to seek another health care provider. It will, therefore, be important to identify ways to improve patients' perceptions of mistakes. Such an intervention would likely include attention to not only situations defined by the medical community as adverse events, but also to patient expectations of health care encounters and to physician-communication communication around diagnostic and therapeutic processes and outcomes.

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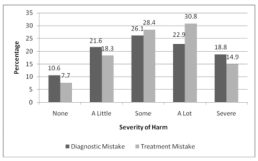

Figure 1.
Percentages of Respondents Who Perceived Harm from Diagnostic Mistakes (n=218) and Treatment Mistakes (n=208)

Table 1

Demographics and Health Status of Study Participants (n=1697)

	Number	Percentage
Age, y		
18-29	321	19.3
30-39	302	18.23
40-49	373	22.5
50-59	336	20.28
≥ 60	325	19.61
Married/Living with Partner	853	51.8
Race/Ethnicity		
Caucasian	557	32.8
African American	620	36.5
Hispanic	329	19.4
Other	75	4.4
Missing Data	116	6.8
Practice Location		
A	228	13.4
B	236	13.9
C	360	21.2
D	409	24.1
E	107	6.3
F	216	12.7
G	141	8.3
Current Health Problems		
Heart Disease	163	9.6
High Blood Pressure	720	42.4
Lung Disease	101	5.9
Obstructive Sleep Apnea	158	10.9
Stroke or mini-stroke	76	4.5
Cancer	77	4.5
Depression	467	27.5
Chronic Back Pain	416	24.5
Diabetes	324	19.1
Self-reported Health		
Excellent to Good	1035	62.2
Fair to Poor	655	38.8
Physical Health in Past 30 Days Not Good		
Any Days Not Good	1010	59.5

	Number	Percentage
Missing Data	149	8.8

Table 2

Factors Associated with the Report of Medical Mistakes Controlling for Site (n=1310)

	Percentage Who Report Mistake, n(%)	Adjusted Odds Ratio (95% CI)*
Age, y		
18-29	43 (13)	1.0
30-39	40 (13)	1.01 (.59, 1.73)
40-49	65 (17)	1.31 (.79, 2.18)
50-59	64 (19)	1.51 (.89, 2.56)
≥ 60	44 (14)	1.18 (.67, 2.09)
Gender		
Male	81 (15)	1.0
Female	184 (16)	1.03 (0.74, 1.44)
Race/Ethnicity		
Caucasian	109 (19)	1.0
African-American	81 (13)	0.65 (0.46, 0.94)
Hispanic	44 (13)	0.55 (0.27, 1.12)
Other	13 (17)	1.10 (0.55, 2.18)
Educational Status		
High School Diploma or Less	105 (12)	1.0
Some College or More	154 (20)	1.99 (1.41, 2.79)
Chronic Low Back Pain		
Absent	152 (13)	1.0
Present	93 (22)	1.51 (1.07, 2.11)
Reported Physical Health Not Good		
On No Days in the Past 30 Days	48 (9)	1.0
On At Least One Day in the Past 30 Days	201 (20)	2.19 (1.50, 3.20)

* fixed effects model controlling for site characteristics, adjusted for all factors in the table

Table 3

Participants' Perceived Mistakes and Associated Effects (n=52)

Mistake Type	Severity of Harm	Changed physician
Diagnostic Mistakes		
Told by PCP* he had "COPD" and started meds but pulmonologist said "you just don't get it in 1 year" and stopped them	None	Yes
Told by PCP he had a "very active tumor" given high Prostate Specific Antigen; referral to urologist and repeat tests were normal	None	Yes
Told ankle swelling was "fluid retention", but next physician diagnosed renal disease and referred to nephrology	None	Yes
Told by PCP rash was an allergic reaction, but dermatologist diagnosed psoriasis	A Little	Yes
Told by PCP urinary frequency was due to a prolapsed uterus, but developed pain and actually had renal stones	A Little	Unknown
Stress test at PCP's thought to represent questionable cardiac disease, was sent to the cardiologist who did a cardiac catheterization that showed no disease	A Little	No
Told by PCP that hernia diagnosed by a physician at a free screening was "just fat", but later required hernia surgery	A Little	No
Told by PCP yearly exam was normal but 2 weeks later had menorrhagia requiring hysterectomy	A Little	No
Diagnosed with anxiety, but OSH† found out participant actually has had obsessive compulsive disorder and attention-deficit disorder all along	A Little	No
Was diagnosed with heart failure by PCP but found to have severe anemia	Some	Yes
Rheumatologist disagreed with participant's multiple sclerosis physician whose diagnosis of lupus was later confirmed with no end organ damage	Some	Yes
Told by gynecologist she had eclampsia but found later to have bruised ribs	Some	Yes
Told by gynecologist that bladder issues were normal after total abdominal hysterectoy, but eventually diagnosed with bladder complications requiring catheterization	Some	Yes
Told by PCP that gastrointestinal pain, fever, and diarrhea was food poisoning, but gastroenterologist eventually diagnosed Crohn's disease	Some	Yes
Told by multiple dentists needed different interventions for a lost crown	Some	No
Told by infectious disease specialist and rheumatologist nothing was wrong, but referral to otolaryngologist led to diagnosis of Lyme disease	Some	Yes
Told by PCP that prior diagnosis of lupus was wrong, but developed lupus-induced hypertension, renal failure, and dysfunctional uterine bleeding	A Lot	Yes
Told by PCP exam was fine, but further work-up revealed endometriosis after referral to OSH	A Lot	Unknown
Told by a specialist that a swollen axillary lymph node was breast cancer, but 2nd specialist diagnosed "cat scratch fever"	A lot	Yes
Told by many physicians chronic back pain was from a sprained/strained back, but was spinal stenosis	A Lot	Yes
Diagnosed with lung cancer while out of state, found out it was sarcoidosis	A Lot	No
Participant had a delay in diagnosis of lung disease; believes he may have asthma and not COPD, and also had delays in getting a breathing machine	A lot	No
Told by gynecologist pelvic pain was due to pelvic inflammatory disease, but later found uterus was "turned backwards" and new positions during intercourse diminish pain	A Lot	Yes
Told by OSH that dysfunctional uterine bleeding was "hormonal bleeding" but after syncopal event, was seen by surgeon who diagnosed fibroids and	A Lot	Yes

Mistake Type	Severity of Harm	Changed physician
performed surgery		
Told by PCP that a “spider bite” needed antibiotics but it really needed incision and drainage	A Lot	No
Told neck pain was “arthritis” but participant thinks it is nerve related, because participant also has carpal tunnel syndrome	A Lot	No
Obese participant sold her home after being diagnosed with suspected uterine cancer, eventually found by gynecologist to be an infected fallopian tube	A Lot	Yes
Orthopod was uncertain of knee injury and participant was diagnosed with fractured patella and ACL/MCL tear at OSH instead	A Lot	No
PCP made diagnosis of infected knee hardware after orthopedics denied it was abnormal	A Lot	No
Told by PCP that shoulder pain was degenerative joint disease but another PCP diagnosed a torn rotator cuff	A Lot	No
Had cholecystectomy for presumed gallbladder disease, but was later found to have chronic appendicitis	Severe	Yes
Told by different surgeons he needed different surgeries for back and hip trauma after a motor vehicular accident. Participant felt they were racist and only after his money.	Severe	Yes
Had brain surgery to stop seizures but continues to have symptoms and no physician will explain why	Severe	Yes
Told after surgery from a second ophthalmologist that participant was misdiagnosed with glaucoma	Severe	No
Told by PCP in Cuba that stomach pains were diverticulitis but found out it was cholecystitis	Severe	Yes
Diagnosed and treated by PCP for diabetes, Alzheimer’s, schizophrenia with medication side effects but later found not to have these conditions; also reports sexual assault by PCP	Severe	Yes
Treatment Mistakes		
Given “sulfide antibiotic” and another medication but told by pharmacist not to take them together	None	Yes
PCP gave “allergy shot” for allergies and had face swelling, and eventually emergency physician gave a second shot to reverse the first shot	A Little	No
Told to take ibuprofen for fatigue but found much later to have Hepatitis C and believes this delay prevented appropriate treatment	A Little	No
Participant perceives he received a low-strength antibiotic for a sinus infection which only got better after the trial of 3 antibiotics	A Little	Yes
Participant wasn’t told that a discogram for ruptured disk w/low back pain would be expensive, hurt, and might not help until after it was done	A Little	Yes
Participant had a series of medication side effects: Received blood pressure medication that gave participant a headache and so received opiate which lead to nausea, but had no anti-nausea medication and then got an antidepressant for pain that didn’t help	Some	Yes
Participant kept having syncope, went blind in one eye, and had seizures after private PCP took participant off medications for previously diagnosed hypertension and diabetes	Some	No
Told by PCP panic attacks didn’t need medications, but she did and this caused “3 months of hell”	Some	Yes
PCP got private urology appointment in 10 days while it was taking forever to get one at OSH	Some	Yes
Took a medication for a neck problem and his neck swelled to twice its size requiring a steroid shot	Some	Yes
Physicians wouldn’t see participant during an allergic reaction to medications	Some	Yes

Mistake Type	Severity of Harm	Changed physician
Cardiologist performed expensive testing for tachycardia that didn't treat the problem	Some	Yes
Received medication for low back pain but had nausea and weight loss, which completely resolved after the medication was stopped	Some	Yes
PCPs wouldn't listen that her asthma is worse in the summer and lowered her medications which resulted in hospitalization	A Lot	Yes
Told to have cholecystectomy for abdominal pain and diarrhea, but symptoms have continued; has requested exploratory surgery	A Lot	Yes
Finally got physical therapy and a back brace, though only received medication for work-related low back pain initially	A Lot	Yes
Received physical therapy eventually for rotator cuff tear, but "therapist overdid it" during therapy and he needed a repeat surgery	A Lot	Yes
Tried many medications for pain from Charcot-Marie Tooth disorder which caused side effects	A Lot	Yes
Told his renal disease was from diabetes but had been told prior it was caused by a medication; he believes the disease was from the medication	A Lot	No
Has no insurance and has had delays in receiving injections and physical therapy for degenerative disc disease	A Lot	No
PCP didn't know she had developed diabetes after severe burns and next graft surgery had to be postponed because of hyperglycemia	A Lot	No
Had to receive 3 different antibiotics for a sinus infection before getting well	Severe	Yes
Multiple physicians delayed treatment of low back pain, tried medications that didn't work, and the pain didn't improve	Severe	Yes
Went to OSH to have a breast implant removed after the surgeon who performed the mastectomy and reconstruction for breast cancer didn't believe one of them had become infected	Severe	Yes

*PCP: Primary Care Physician

†: Outside Hospital