

Health Plan Members' Views on Forgiving Medical Errors

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Background: How patients respond to medical errors may influence how physicians approach disclosure of medical errors, but information on patients' responses is limited. Research is needed on how the circumstances that surround a medical error affect how patients respond.

Objective: To investigate whether patients' tendency to forgive a physician following a medical error varied under different circumstances.

Study Design: Cross-sectional survey.

Methods: We mailed a questionnaire to 1500 randomly selected health plan members; the response rate was 66%. Questionnaire items assessed the likelihood of forgiveness following a medical error under 12 circumstances drawn from a review of the literature.

Results: Respondents were most likely to forgive a physician if the patient failed to provide complete information (93% would or might forgive) and least likely to forgive if the error was due to efforts to keep costs down (11% would or might forgive). Most respondents would not forgive a physician when the physician was tired or distracted (68%), was incomplete in data collection (76%), lacked knowledge (78%), or failed to follow up (85%). Men were more likely to forgive than women; the most educated respondents were most likely to forgive.

Conclusions: Our findings suggest that patients are not likely to forgive a physician in circumstances in which they suspect incompetence, inattention, or a lack of caring on the part of the physician involved. A more comprehensive understanding of forgiveness and the effect of forgiveness on the physician-patient relationship following a medical error is needed.

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Since the publication of the Institute of Medicine's report *To Err Is Human*,¹ the problem of medical errors has gained increased recognition by the general public.^{2,3} Researchers and policy makers have begun to focus serious efforts on improving patient safety,^{4,6} but the complexity and uncertainty inherent in the practice of medicine make it unlikely that medical errors will ever be eliminated completely. A growing body of literature indicates that patients and the public favor full disclosure of errors to patients.^{3,7-10} Although physicians express support for disclosure in theory,³ they often do not disclose errors.^{3,11-13} Physicians' reluc-

tance to disclose errors to patients may stem in part from concern about how patients will respond to knowledge of a medical error. The objective of this study was to explore patients' attitudes toward medical errors, especially their willingness to forgive when medical errors occur. Physicians who understand patients' perspectives are likely to be better able to communicate with patients. In addition, understanding of patients' views may help in prioritizing efforts to improve patient safety and reduce medical errors.

This study was conducted in conjunction with a larger study⁷ of health plan members' views on disclosure of medical errors reported previously. This report follows from and builds on that earlier work.

METHODS

We mailed a questionnaire to 1500 randomly selected adult members of a New England-based mixed-model health maintenance organization. Individuals could join the health maintenance organization through an employer or via Medicaid or Medicare. The details of the mailing are reported elsewhere.⁷

Respondents were asked whether they would forgive a physician who had made an error under 12 circumstances (Table). The circumstances listed were intended to be representative of situations cited in the *Journal of Medical World Communications, Inc.*

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Table. Items and Responses*

Circumstance	Response		
	Would Forgive	Might Forgive	Would Not Forgive
<i>"Considering each of the following circumstances, would you forgive a physician who had made an error under that circumstance?"</i>			
The patient did not tell the physician everything.	56	37	7
The patient's condition was unusual, and the physician was not familiar with it.	25	59	16
It was an emergency situation.	20	58	22
The physician was too aggressive in treatment.	10	65	25
The physician wasn't the patient's regular physician.	10	57	33
The physician got bad advice from another physician.	15	51	34
The physician was not aggressive enough in treatment.	6	55	39
The physician was tired or distracted.	6	27	68
The physician wasn't thorough in his or her examination or in talking with the patient.	3	22	76
The physician did not have, or forgot, important medical knowledge that most physicians have.	3	19	78
The physician did not follow up or did not monitor test results or treatment.	2	12	85
The physician made a poor decision because he or she was trying to keep costs down.	3	8	89

*Data are given as percentages, which reflect the number responding in each category, divided by the number of usable responses for each item (excluding missing data). Some percentages do not sum to 100 because of rounding.

literature as possibly contributory to error.¹⁴ Three response options were provided, including "would forgive," "might forgive," and "would not forgive." We also collected background and demographic information, including sex, age, race, ethnicity, and education.

Background characteristics of respondents and nonrespondents were compared using a χ^2 test for sex and a *t* test for age. Percentages of respondents choosing each response category for each item were calculated. A summary "tendency-to-forgive" score was computed, indicating the percentage of the 12 circumstances in which the respondent would or might forgive.

We used *t* tests to examine the relationship between respondents' sex and forgiveness. We used analysis of variance to examine the relationship between level of education and forgiveness (with education categorized as high school or less, some college or a 4-year college degree, or greater than a 4-year college degree). To examine the relationship between age and forgiveness, we used *t* tests comparing those 64 years or younger with those 65 years or older; we also calculated the correlation between age and forgiveness. Statistical analy-

ses were performed using SPSS software, version 11.5 (SPSS Inc, Chicago, Ill). The study protocol was approved by the institutional review boards of the participating institutions.

RESULTS

Nine hundred fifty-eight complete and usable questionnaires were returned, for a response rate of 66% (47 undeliverable questionnaires were removed from the denominator for response rate calculations). Compared with nonrespondents, respondents were more likely to be female (57% vs 45%, *P* < .001). Respondents were also older than nonrespondents (mean age, 51.9 vs 45.0 years; *P* < .001). Nearly all respondents (92%) reported

their race as white, consistent with the US Census statistics for this area for 2000, where 89.6% of respondents identified themselves as white.¹⁵ With respect to education, 29% of respondents 25 years or older reported having a 4-year college degree or higher, compared with 27% of census respondents 25 years or older.¹⁵

The Table gives the percentage of respondents choosing each response option for the 12 circumstances listed, ordered from most forgivable to least (based on the percentage responding that they would forgive). Comparing summary tendency-to-forgive scores, men were more likely to forgive than women (55.7 vs 49.5, *t* = 4.239, *P* < .001). Although we did not use statistical tests to make comparisons at the item level, men were more forgiving than women for each individual item. We also found a relationship between education and forgiveness, with the most educated respondents reporting the strongest tendency to forgive (*F* = 6.439, *P* = .002); again, this tendency was consistent across individual items. The mean \pm SD tendency-to-forgive score for the most educated respondents was 58.4 \pm 22.9, compared with 51.0 \pm 21.3 for those with some college education

or a 4-year college degree and was 51.2 ± 22.5 for those with a high school education or less. We found no statistically significant relationship between tendency-to-forgive scores and age.

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DISCUSSION

To our knowledge, this study is the first to examine patients' opinions about forgiving physicians involved in medical errors under different circumstances. We found that patients consider some circumstances more forgivable than others. For each circumstance, there was one response category that most respondents endorsed, suggesting that circumstances can be considered as 3 sets based on these modal responses, including circumstances that most respondents would forgive, those that most might forgive, and those that most would not forgive. With respect to the first set, most respondents indicated that they would be forgiving of the circumstance in which the patient contributed to the error by not telling the physician everything relevant to his or her condition. This observation is consistent with previous findings that most respondents believed that patients should take some responsibility for preventing errors.⁷ There were 6 circumstances in which most respondents indicated that they might be forgiving. Three of these circumstances (treatment of an unusual condition, in an emergency situation, or by a physician who is not the patient's regular physician) would probably be considered unusual or atypical by the public. The other 3 circumstances (a physician receiving bad advice from another physician, being too aggressive in treatment, or not being aggressive enough in treatment) suggest that the physician was at least trying to provide good care. In contrast, the last set of circumstances, which most respondents would not forgive, would probably be considered by lay people to be indicative of incompetence, inattention, or an uncaring attitude. It has been suggested that some offenses, especially those that violate assumptions about the goodness of others, may be unforgivable.¹⁶ In the circumstance in which the physician's consideration of costs played a role, only 3% of participants indicated that they would forgive the physician. The public may see consideration of costs as so inimical to physicians' roles as healers that an error in this circumstance may be considered especially egregious and unforgivable.

We found that men reported more forgiving attitudes than women. Wording of the items was intentionally gender neutral, but we have no way of knowing whether respondents made assumptions about the sex of the physician. Conventional wisdom might predict that

women would be more likely to be empathetic and would therefore be more forgiving of the physician. Our findings suggest the opposite. If women are more empathetic, it appears that they may empathize with the patient rather than the physician. Our results are consistent with findings reported by Worthington,¹⁷ who found that women tended to favor the patient in a fictionalized malpractice suit, while men favored the physician.

Our finding that the most educated respondents had higher tendency-to-forgive scores may be due to more educated respondents' perceiving themselves as more similar to the physicians. It is also possible that more educated respondents are more likely to be aware that the practice of medicine is replete with uncertainty and that physicians' actions cannot be easily characterized as right or wrong. Further research is needed to determine whether either hypothesis is supported and whether this result is confirmed in other samples.

These findings have implications for physicians who are concerned about disclosure of medical errors. One component of the disclosure process may be an apology; furthermore, in many cases an explanation is critical to the effectiveness of an apology.¹⁸ In a study¹⁹ of the effect of apology in a videotaped office setting where a patient had an extended wait before being seen, participants responded more positively when the apology included an explanation compared with when it did not. However, our findings suggest that not all explanations are likely to make an apology more acceptable. From the patient's perspective, at least some circumstances may not be forgivable. Patients have high expectations of physicians even in difficult circumstances, and certain explanations (eg, those having to do with avoiding cost or being rushed) are not likely to be well accepted by patients.

This study has several limitations. Responses to questionnaire items may not correspond to responses to real occurrences of medical errors. The items used herein were abstract, which may have made it more likely that respondents would express unforgiving attitudes compared with how they would react toward their own physician, with whom they have a relationship. We are not aware of any studies that have examined patients' tendencies to forgive their own physician, so we have no empirical findings that would allow us to determine whether or to what extent our findings predict how patients would respond to their own physician under similar circumstances. We did not define forgiveness, so we are unable to determine whether respondents considered the emotional, cognitive, or behavioral correlates of forgiveness in formulating their judgments. We are not able to address the extent to

which patients might experience forgiveness internally but still seek redress. In instances of actual error, there are other factors that might be expected to influence a patient's response, including, for instance, whether multiple providers were involved in the occurrence. The fact that the study was conducted within the context of a managed care plan may also have had an effect on patients' perceptions and responses, especially with respect to the item referring to errors due to efforts to keep costs down. Our ability to generalize these findings may be limited because we drew our sample from a single geographic area. Because of a lack of sufficient racial and ethnic diversity in our sample, we were unable to examine whether there are racial or ethnic differences in tendencies to forgive; additional studies examining whether differences exist will be important. Last, although we had a large sample and a response rate of 66%, nonresponse bias remains a potential limitation.

Forgiveness is seen as an important step for physicians, patients, and families in the emotional healing that follows error and injury. It has been argued that physicians must apologize and be forgiven, after an error has occurred, before trust can be reestablished and the patient and physician can move forward.²⁰ However, as Berlinger²¹ highlights, it is important for clinicians to be aware that forgiveness of medical errors may not be, and perhaps should not be, automatic. Our findings suggest that patients are not likely to forgive a physician in circumstances in which they suspect incompetence, inattention, or a lack of caring on the part of the physician involved. More work is needed to understand how forgiveness affects the physician-patient relationship after a medical error has occurred.

REFERENCES

1. Kohn LT, Corrigan JM, Donaldson M, eds. *To Err Is Human: Building a Safer Health System*. Washington, DC: National Academy Press; 2000.
2. Robinson AR, Hohmann KB, Rifkin JJ, et al. Physician and public opinions on quality of health care and the problem of medical errors. *Arch Intern Med*. 2002;162:2186-2190.
3. Blendon RJ, DesRoches CM, Brodie M, et al. Views of practicing physicians and the public on medical errors. *N Engl J Med*. 2002;347:1933-1940.
4. Ioannidis JP, Lau J. Evidence on interventions to reduce medical errors: an overview and recommendations for future research. *J Gen Intern Med*. 2001;16:325-334.
5. Shojania KG, Duncan BW, McDonald KM, Wachter RM. Safe but sound: patient safety meets evidence-based medicine. *JAMA*. 2002;288:508-513.
6. Leape LL, Berwick DM, Bates DW. What practices will most improve safety? evidence-based medicine meets patient safety. *JAMA*. 2002;288:501-507.
7. Mazor KM, Simon SR, Yood RA, et al. Health plan members' views about disclosure of medical errors. *Ann Intern Med*. 2004;140:409-418.
8. Hobgood C, Peck CR, Gilbert B, Chappell K, Zou B. Medical errors: what and when: what do patients want to know? *Acad Emerg Med*. 2002;9:1156-1161.
9. Witman AB, Park DM, Hardin SB. How do patients want physicians to handle mistakes? a survey of internal medicine patients in an academic setting. *Arch Intern Med*. 1996;156:2565-2569.
10. Gallagher TH, Waterman AD, Ebers AG, Fraser VJ, Levinson W. Patients' and physicians' attitudes regarding the disclosure of medical errors. *JAMA*. 2003;289:1001-1007.
11. Novack DH, Detering BJ, Arnold R, Forrow L, Ladinsky M, Pezzullo JC. Physicians' attitudes toward using deception to resolve difficult ethical problems. *JAMA*. 1989;261:2980-2985.
12. Mizrahi T. Managing medical mistakes: ideology, insularity and accountability among internists-in-training. *Soc Sci Med*. 1984;19:135-146.
13. Wu AW, Folkman S, McPhee SJ, Lo B. Do house officers learn from their mistakes? *JAMA*. 1991;265:2089-2094.
14. Ely JW, Levinson W, Elder NC, Mainous AG, Vinson DC. Perceived causes of family physicians' errors. *J Fam Pract*. 1995;40:337-344.
15. US Census Bureau, Census 2000 Web site. Table DP-1: profile of general demographic characteristics: 2000: Worcester County, Massachusetts. Available at: <http://www.quickfacts.census.gov/qfd/states/25/25027.html>. Accessed December 21 2004.
16. Exline JJ, Worthington EL Jr, Hill P, McCullough ME. Forgiveness and justice: a research agenda for social and personality psychology. *Pers Soc Psychol Rev*. 2003;7:337-348.
17. Worthington DL. Making attributions to the physician following closing arguments of a simulated medical malpractice suit: jurors' sex, health locus of control, and locus of authority. *Psychol Rep*. 1997;80:943-946.
18. Lazare A. *On Apology*. New York, NY: Oxford University Press; 2004.
19. McCord RS, Floyd MR, Lang F, Young VK. Responding effectively to patient anger directed at the physician. *Fam Med*. 2002;34:331-336.
20. Quill TE, Arnold RM, Platt F. "I wish things were different": expressing wishes in response to loss, futility, and unrealistic hopes. *Ann Intern Med*. 2001;135:551-555.
21. Berlinger N. Avoiding cheap grace: medical harm, patient safety and the culture(s) of forgiveness. *Hastings Cent Rep*. 2003;33:28-36.