Should Medical Errors Be Disclosed to Pediatric Patients? Pediatricians' Attitudes Toward Error Disclosure

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The authors declare that they have no conflict of interest.
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Received for publication May 6, 2015; accepted June 25, 2015.

ABSTRACT

OBJECTIVE: Limited data exist on medical error disclosure in pediatrics. We sought to assess physicians' attitudes toward error disclosure to parents and pediatric patients.

METHODS: An anonymous survey was distributed to 1200 members of the American Academy of Pediatrics. Surveys included 1 of 4 possible cases that only varied by patient age (16 or 9 years old) and by whether the medical error resulted in reversible or irreversible harm. Statistical analyses included chi-square, Bonferroni-adjusted *P* values, Fisher's exact test, Wilcoxon signed rank test, and logistic regressions including key demographic factors, patient age, and error reversibility.

RESULTS: The response rate was 40% (474 of 1186). Overall, 98% of respondents believed it was very important to disclose medical errors to parents versus 57% to pediatric patients ($P < .0001$). Respondents believed that medical errors could be disclosed to developmentally appropriate pediatric patients at a mean age of 12.15 years old (SD 3.33), but not below a mean age of 10.25 years old (SD 3.55). Most respondents (72%) believed that physicians and parents should jointly decide whether to disclose to pediatric patients. When disclosing to pediatric patients, 88% of respondents believed that physicians should disclose with the parents present. Logistic regressions found only patient age (odds ratio 18.65, 95% confidence interval 9.20–37.8) and error reversibility (odds ratio 2.90, 95% confidence interval 1.73–4.86) to affect attitudes toward disclosure to pediatric patients. Respondent sex, year of medical school graduation, and area of practice had no effect on disclosure attitudes.

CONCLUSIONS: Most respondents endorse disclosing medical errors to parents and older pediatric patients, particularly when irreversible harm occurs.

KEYWORDS: clinical bioethics; error disclosure; patient safety; pediatrics

ACADEMIC PEDIATRICS 2016;16:482–488

WHAT'S NEW

Pediatricians strongly believe that medical errors should be disclosed to older pediatric patients, particularly when irreversible harm occurs. Most prefer collaborating with parents about whether and when to disclose to the pediatric patient and to have parents present when disclosing.

IN NOVEMBER 1999, the Institute of Medicine issued a report, *To Err is Human: Building a Safer Health System*, which discussed the prevalence of medical errors in the United States and presented comprehensive strategies for the reduction of medical errors.[1] The report led to increased research in the field of patient safety and medical error disclosure. Research has found that when a medical error occurs, both patients and physicians endorse full and timely disclosure, especially when an error results in serious or permanent harm.[2–7] For patients, full disclosure means that they are told that a medical error occurred, what the error was, why the error occurred, and what changes will be made to prevent similar errors in the future; finally, they are given a full apology.[8–11] Despite support by patients and physicians, several barriers to full disclosure exist including lack of training, fear of litigation, fear of blame, fear of damage to the physicians' reputation, and fear of making patients anxious or causing them to lose trust in their physician. For these reasons, medical error disclosure has not yet become standard practice universally.[5–9,12]

To date, only 2 studies have explored parental preferences on medical error disclosure in pediatrics.[13,14] In

2005, Hobgood et al[13] investigated parental preferences for error disclosure by surveying 500 parents of children presenting to an emergency department with non-life-threatening complaints. In the event an error occurs, 99% of the parents surveyed wanted full disclosure, regardless of severity. This preference was not affected by the child's age, sex, race/ethnicity, and/or insurance status. In 2010, Matlow et al[14] surveyed 431 parents in inpatient and ambulatory settings and similarly found that the majority of parents wanted full disclosure of errors affecting their children. The majority also wanted their children to be informed about the error. This was the first published study to address parental preferences for disclosure of medical errors to their child, the pediatric patient.

Only 2 prior published studies have evaluated medical error disclosure practices among pediatricians.[15,16] Both studies addressed how and when pediatricians disclosed medical errors to parents but did not address error disclosure to the pediatric patient. To our knowledge, no prior studies have assessed if and how physicians disclose medical errors to pediatric patients, when a medical error should be disclosed to a pediatric patient, and what information should be disclosed to a pediatric patient after a medical error occurs.

The objective of this study was to assess physician attitudes toward medical error disclosure in pediatrics, and specifically toward the disclosure of medical errors to pediatric patients. We hypothesized that 1) pediatricians would endorse the full and timely disclosure of all medical errors to parents; 2) pediatricians would endorse the full and timely disclosure of all medical errors to older children and when irreversible harm occurs; 3) pediatricians would accede to parental requests not to disclose to the child although they would not lie to the child directly; and 4) pediatricians would be more likely to disclose if they had received training in error disclosure.

METHODS

STUDY DESIGN

An anonymous survey was distributed between March and August 2014 to 1200 pediatricians practicing in the United States who were members of 1 of 3 sections of the American Academy of Pediatrics: Hematology/Oncology, Critical Care, and Hospital-Based Medicine. These sections were chosen because more research has been published on errors (including medication errors) on the inpatient side, and because errors are more common in patients who receive multiple medications or have complex medical needs.[1,17,18] To confirm area of practice, respondents were asked for a self-reported area of practice in the demographics section. The self-reported area of practice was used in statistical analyses assessing for differences between these 3 groups. Those who identified as still in training or general pediatrics were excluded from statistical analyses involving area of practice comparisons. The survey was designed by the authors and reviewed by a group of peers for question clarity and comprehension. Respondents completed either a Web-based or a mail-in anonymous survey. The survey was first distributed by e-mail, with 2 reminder e-mails sent at 2-week intervals. Participants were excluded from the study if their e-mails bounced back as undeliverable or if they requested not to participate in the study. A mailed version of the survey was distributed after completion of 3 rounds of e-mail distribution to remaining nonrespondents with a valid mailing address.

This study was exempted by both the Ann & Robert H. Lurie Children's Hospital of Chicago and the University of Chicago institutional review boards.

The survey contained 3 sections. The first section addressed general attitudes toward error disclosure, including the importance of disclosing medical errors at varying levels of harm and the age at which a medical error could be disclosed to a developmentally appropriate pediatric patient. In the second section of the survey, 300 participants (100 from each discipline) randomly received 1 of 4 possible cases of a medication-related medical error. The cases varied only by the age of the patient (16 or 9 years old) and whether the medical error resulted in reversible or irreversible harm, referred to here as "reversible error" and "irreversible error," respectively (Appendix 1). All survey versions then had a series of questions that addressed the relevance of a variety of factors when disclosing this error to the parents or pediatric patient. Respondents were also asked who should decide whether to disclose, who should disclose, how to disclose, what to disclose, and when to disclose this error to the parents or pediatric patient. Finally, respondents were asked how to proceed if the parents insisted that the medical team not disclose this error to the pediatric patient and if the pediatric patient asked directly why this happened. One question was inadvertently omitted in all mailed surveys: question 5e, which read, "The relevance of how responsible the physician feels for the error when disclosing to a pediatric patient." The third part of the survey asked for demographic information. All questions that involved an importance rating utilized the same 4-point Likert scale (1 = not important, 2 = somewhat important, 3 = important, 4 = very important). Most questions had an empty field for respondents to provide comments. Appendix 2 provides a copy of one version of the survey (16-year-old reversible error).

STATISTICAL ANALYSES

Descriptive statistics were computed for all questions, including means and standard deviations for continuous variables and percentages for categorical variables. z tests were used to assess for statistically significant differences between respondent groups. Questions involving a 4-point Likert scale were analyzed both as 4 independent variables and dichotomously by grouping variables of comparable quality ("low importance," which combined 1 = not important and 2 = somewhat important, compared to "high importance," which combined 3 = important and 4 = very important). Survey responses were assessed as a complete aggregate and by survey version (1: 16-year-old reversible error; 2: 16-year-old irreversible error; 3: 9-year-old reversible error; 4: 9-year-old irreversible