“It Matters What I Think, Not What You Say”: Scientific Evidence for a Medical Error Disclosure Competence (MEDC) Model

Annegret F. Hannawa, PhD* and Richard M. Frankel, PhD†

Objective: This study sought to validate the ability of a “Medical Error Disclosure Competence” (MEDC) model to predict the effects of physicians’ communication skills on error disclosure outcomes in a simulated context.

Method: A random sample of 721 respondents was assigned to 16 experimental disclosure conditions that tested the MEDC model’s constructs across 2 severity conditions (i.e., minor error and sentinel event).

Results: Severity did not affect survey respondents’ perceptions of the physician’s disclosure style. Respondents who viewed the nonverbally skilled disclosure perceived the disclosure as more adequate compared to respondents in the “low nonverbal skill” disclosure condition. Interpersonal adaptability did not affect respondents’ adequacy ratings. Consistent with the MEDC model, those who viewed the physician’s error disclosure as inadequate indicated that they would be more prone to engage in relational distancing behaviors, while those who rated the disclosure as adequate were more likely to reinvest into their relationship with their physician. These respondents also had higher resilience scores. In the context of a sentinel event, perceived adequacy significantly predicted endorsing legal redress or remedies (e.g., lawsuit). Verbal apology (e.g., “I’m sorry,” “I apologize”) did not predict any significant variance in the model beyond the physician’s nonverbal skill.

Conclusion: In a simulated disclosure setting, physicians’ communicative skills—particularly effective nonverbal communication during a disclosure—trigger outcomes that affect the patient, the physician, and the provider-patient relationship. Findings from this study suggest that MEDC guidelines may be helpful in reducing financial and reputational risks to individual providers and institutions, particularly in the context of a sentinel event.

Key Words: communication, human error, health care quality improvement, health professions education, social sciences

The widespread occurrence of preventable adverse events in health care across the globe calls for comprehensive evidence-based good practice guidelines for disclosing medical errors to patients. Adequate information disclosure improves patient well-being. The current study operationalizes the 3 MEDC model constructs (Adequacy, Skills, and Redress)7 to test their predictive power of error disclosure (Adequacy), which in turn affects the effectiveness of the disclosure (Effectiveness) and the extent to which patients perceive both adequate and inadequate disclosures to be effective.

METHODS

Experimental Intervention

An experimental design was used to test the predictive power of the 3 Skills sets in the MEDC model: (1) conveyance of a “sincere apology”, (2) flexibility in adapting to the patient’s expressed needs and expectations during the disclosure conversation, and (3) nonverbal messages conveyed during the disclosure. Each of these 3 Skills were dichotomized into high and low levels, yielding a 2 × 2 × 2 table of 8 different disclosure styles.

In addition, the context of the disclosure was dichotomized into high and low severity. In 1 case, the context was described in a minor error (i.e., a physician failing to inquire about a patient’s allergies before surgery, which results in an uncomfortable but harmless rash); the other context involved a serious sentinel event, where a missed diagnosis leads to a significantly delayed cancer
treatment (full case descriptions are shown in Table 1). These 2 severity contexts, combined with the 8 disclosure styles, yielded 16 distinct experimental treatment groups (Fig. 2).

The 16 treatments were prepared in 3 consecutive phases. First, an anesthesiologist and a gastroenterologist generated written descriptions of the (1) minor error and (2) serious sentinel event (Table 1). These written vignettes were sent to 2 additional anesthesiologists and gastroenterologists who ensured their face validity. Second, the anesthesiologist and gastroenterologist were trained to perform an optimal MEDC guideline–adherent disclosure with a standardized patient for each severity context. Both narratives were audio-recorded, transcribed, and then used as the basis for the filming of 16 video vignettes: Statements indicative of a sincere apology, including verbal apology statements (“I am sorry”, “I apologize”) and expressions of regret and remorse were retained for half of the vignettes and removed from the other half. Nonverbal skills (attentiveness, composure, coordination, expressiveness) and interpersonal adaptability (visible adaptation to the patient’s expressed emotional or informational needs) were equally manipulated.

Two German-speaking professional actors (1 female, 1 male) were trained to enact the MEDC manipulations on film. The actors

### TABLE 1. Narrative Descriptions of a (1) Minor Error and (2) Sentinel Event

#### Context 1: Minor Error

Mr. Smith is experiencing acute pains in his right lower abdomen and is running a fever. His primary care physician identifies a strong release pain and wants to perform exploratory surgery immediately. He diagnoses an acute appendicitis and immediately refers Mr. Smith to the hospital for urgent surgery. There, Mr. Smith gets operated on the same day. After the anesthesia is given and before the surgery begins, the anesthesiologist gives Mr. Smith the usual antibiotic prophylaxis (Ampicillin plus Sulbaktam), without first checking on potential allergies. The patient had completed the informed consent forms in which he declared that he is allergic to penicillin. The anesthesiologist however, had not read the forms properly and also did not explicitly ask the patient about possible allergies. Within 2 hours after the surgery, Mr. Smith had a severe, itching skin rash (redness and itchiness) all over his body. He had already been transferred from the recovery room to his hospital room when he calls the attending physician and saves it to the patient’s records.

The anesthesiologist discloses to the patient his failure to go over potential allergies. The patient had already mentally checked off the problem as an irritable colon. He does not properly read the laboratory report that arrives a few days later. Within 2 hours after the surgery, Mr. Smith had a severe, itching skin rash (redness and itchiness) all over his body. Mr. Smith had already been transferred from the recovery room to his hospital room when he calls the attending physician to inform him about the rash. The ward physician then calls the anesthesiologist and requests him to visit the patient. In a private conversation in the patient’s hospital room, the anesthesiologist discloses to the patient his failure to go over potential allergies in accordance with WHO and hospital guidelines. Mr. Smith then has to be treated with medication for a H1-H2-blockade (histamine receptors) plus cortisone. Fortunately, the patient does not suffer any circulation side effects or any other impairments as a result of the allergic reaction. The skin rash lasts for 2 days affecting the patient’s comfort but not his clinical status. On the third day, the rash disappears and the patient is discharged from the hospital as planned, without any time lost, after a successful surgery.

#### Context 2: Sentinel Event

Mr. Jones has been experiencing diffuse abdominal pains for several weeks. His gastroenterologist, who he has been seeing for years, is convinced that it is nothing serious and assumes that he simply has an irritable colon because there is no blood in the stool. Nevertheless, he orders a colonoscopy and takes several biopsies from a slightly mutated area still convinced, however, that it is nothing malignant. The doctor has already mentally checked off the problem as an irritable colon. He does not properly read the laboratory report that arrives a few days later and saves it to the patient’s records.

One year later, Mr. Smith returns to his office, still with pains, but this time also with severe problems related to intestinal voiding. A stool hemoccult is now positive and the gastroenterologist conducts a new colonoscopy. He detects a large tumor in the rectum and extracts biopsies. The patient goes home and, that same night, suffers an acute intestinal obstruction that requires emergency surgery to remove the tumor and a piece of the rectum. The surgery is successful, but the patient has to live with an artificial anus for the rest of his life, because the tumor was too close to the anus and could not be resected.

Because of the size of the tumor, the patient has to undergo chemotherapy with subsequent radiation. The chances of survival are very good because the tumor has not yet metastasized but the artificial anus and the long-term effects of chemotherapy will continue to compromise the patient’s professional and personal quality of life. The Gastroenterologist now has to disclose to the patient what happened—that the tumor was already evident in the laboratory report from the previous year. If the gastroenterologist had read the report properly, the patient could have likely avoided additional surgery, chemotherapy, and radiation.
were randomly assigned to the role of physician (female) and patient (male). They were outfitted by the collaborating hospital with real hospital clothing and tools (e.g., stethoscope, pager, name tag, etc.) and filmed professionally in a hospital room for 4 consecutive days. Fidelity of the event disclosures was ensured by a priori review of the transcripts, ad hoc adjustments made by 2 volunteer anesthesiologists and gastroenterologists during the filming, and physicians’ post hoc approval of the final video vignettes.

**Participant Recruitment**

A Swiss survey company collected representative data from the German-speaking part of Switzerland. Respondents were eligible to participate if they were 18 years of age; if they had visited a physician for routine preventive, chronic, or acute care; or if they had been treated in an outpatient clinic or hospital within the past 3 years.

The sampling frame consisted of a random subsample of 22,000 German-speaking residents of Switzerland with internet access. To avoid “heavy online user” bias and ensure diversity, participants were contacted via multiple channels (i.e., print, online media, social media, and telephone). In all, 1421 individuals accessed the survey link. Among them, 721 qualified as respondents and completed the survey.

Following some introductory questions, respondents were randomly assigned to 1 of the 16 treatments. After watching the disclosure, respondents returned to the survey and answered questions about the treatment and the 3 MEDC constructs.

**MEDC Model Measures**

Medical error disclosure skills (Skills) contained 3 separate scales, which were used to evaluate sincere apology, interpersonal adaptability (IA), and nonverbal skills (NS). Sincere apology was measured using 2 subscales: verbal apology (2 items; e.g., “The physician sincerely apologized”) and expressions of regret/remorse (6 items). Both subscales were reliable with Cronbach $\alpha = 0.71$ and $\alpha = 0.90$, respectively. Interpersonal adaptability was measured by a unidimensional 6-item scale that assessed the extent to which the physician adapted to the patient’s explicitly or implicitly expressed needs and expectations during the disclosure (Cronbach $\alpha = 0.87$). Nonverbal skill was measured using 4 subscales (attention, composure, coordination, and expressiveness) of the Conversational Skills Rating Scale short version.$^5$ All 4 subscales were reliable (Cronbach $\alpha_{att} = 0.91$, $\alpha_{comp} = 0.91$, $\alpha_{coord} = 0.89$, $\alpha_{exp} = 0.91$).

Adequacy was measured by a contextually adapted version of the Appropriateness subscale of the Interactive Media Package for Assessment of Communication and Critical Thinking Impression/Quality Outcomes measure.$^9$ The 4-item scale was reliable (Cronbach $\alpha = 0.86$).

Effectiveness was measured by contextually adapted subscales of the Typologies of Symptomology and Coping Tactics.$^{10}$ The symptomology subscales assessed trauma (8 items, Cronbach $\alpha = 0.88$) and resilience (1 item: “Overall, how damaging or enriching would this physician’s disclosure have been for you, had you been the patient?”). Coping tactics included 5 subscales: moving inward, moving outward, moving toward, moving away, and moving against. Three of them were reliable (Cronbach $\alpha_{away} = 0.82$, $\alpha_{tow} = 0.74$, $\alpha_{against} = 0.82$). Moving outward was moderately reliable (Cronbach $\alpha_{outw} = 0.64$). Moving inward was not reliable and therefore not retained for further analyses.

**RESULTS**

**Sample Description**

The final sample of 721 respondents was approximately sex-equivalent (51% men, 49% women), with a mean (SD) age of 44 (14.10) years (range, 18-70 years). Most identified as Christian (66%), almost a third as agnostic (29%), and few as Islamic (2%) or other religions (3%). Only 26% of the respondents held a college or university degree. More than half (56%) of them had obtained profession-specific education after high school. The remainder possessed “secondary school” (5%) or high school degrees (13%).

More than 3 quarters (79%) of the sample indicated that they regularly see a physician for preventive and/or acute or chronic (56%) care. At the time of the survey (June 2016), approximately two-thirds of the sample had been treated either as hospital outpatients (32%), inpatients (17%) or both (14%) during the previous
3 years; 15% of the sample indicated that they had worked at a physician’s office or hospital at least once in their life.

Almost one-fifth (18%) of the respondents had experienced at least 1 serious preventable adverse event in their health care, and a similar number (20%) had experienced a minor error. More than half (54%) had never experienced a medical error and 8% did not know. Among those who had experienced a serious preventable adverse event or minor error (N = 272), 13% had submitted a formal complaint and 3% had sued their physician.

**Manipulation Check**

A multivariate analysis of variance (ANOVA) was run to test whether the treatment groups perceived the physician’s sincere apology, adaptability (IA), and nonverbal skills as significantly different across the video vignettes. Respondents in the “no sincere apology” treatment groups rated the presence of a sincere apology significantly lower than those in the “sincere apology” conditions (Mlow = 1.86, SElow = 0.05, Mhigh = 2.89, SEhigh = 0.05, F(1, 713) = 194.12, P < 0.01, partial $\eta^2$ = 0.21). Respondents in the “low nonverbal” treatment groups rated the physician’s nonverbal skills significantly lower than those in the “high nonverbal” groups (Mlow = 1.87, SElow = 0.04, Mhigh = 3.06, SEhigh = 0.04, F(1, 713) = 543.02, P < 0.01, partial $\eta^2$ = 0.43). Respondents’ perceptions of the physician’s interpersonal adaptability did not differ significantly between the treatment groups (Mlow = 2.57, SElow = 0.05, Mhigh = 2.60, SEhigh = 0.05, F(1, 713) = 19.9, $P = 0.066$, partial $\eta^2 < 0.01$), which implies that the adaptability (IA) manipulation was not successful.

**Research Questions**

**RQ1:** What communicative disclosure skills (Skills) are most predictive of respondents’ perceived adequacy of the disclosure, within and across contexts (i.e., minor error versus sentinel event)? The 7 Skills variables (i.e., the 2 subscales of sincere apology, the interpersonal adaptability scale, and the 4 attentiveness, composition, coordination, expressiveness-subscases of nonverbal skills) were entered into a stepwise regression to identify which were most predictive of respondents’ Adequacy judgments. Only the attentiveness, composition, and expressiveness subscales of the nonverbal skills scale and the regret/remorse subscale of sincere apology entered the regression model, jointly predicting 67% of the variance in Adequacy. The nonverbal attentiveness subscale alone predicted a majority of that variance, $R^2$Δ = 0.55, $F$ (1, 719) = 885.00, $P < 0.01$, followed by expressions of regret/remorse ($R^2$Δ = 0.09, $F$ (1, 718) = 182.65, $P < 0.01$), composition ($R^2$Δ = 0.03, $F$ (1, 717) = 57.98, $P < 0.01$), and expressiveness ($R^2$Δ < 0.01, $F$ (1, 716) = 3.91, $P < 0.05$). The regression model was run across and within the severity contexts with congruent results.

A subsequent ANOVA was run to test for between-group mean differences in patients’ Adequacy ratings. The video vignettes with the high nonverbal skills treatment were perceived as having significantly greater adequacy than those with the low nonverbal skills treatment. In addition, the sincere apology scenarios were rated as significantly higher in adequacy than the “no sincere apology” scenarios, albeit with a much smaller effect. The ANOVA revealed no clear pattern in mean differences for adaptability (Table 2). Thus, nonverbal skills (with a large effect) and sincere apology (with a small effect) mattered, but the adaptability manipulation did not significantly affect respondents’ adequacy ratings. Finally, severity did not affect respondents’ adequacy perceptions.

**RQ2:** To what extent do high versus low adequacy perceptions predict respondents’ reported experience of symptoms and coping (effectiveness) after the disclosure?

A univariate ANOVA assessed the extent to which respondents’ effectiveness ratings varied by severity and by their perceived adequacy of the disclosure. All effectiveness scales were affected by severity (Table 3), exhibiting the same pattern: Respondents who had perceived the physician’s error disclosure as low in adequacy indicated that they would be more prone to cope with moving away behaviors (i.e., relational distancing, reducing contact, being more careful, ending the relationship with the physician) than respondents who had rated the disclosure as adequate. Likewise, respondents who had rated the disclosure as high in adequacy were more likely to engage in moving toward behaviors (i.e., seeking contact with the physician, renewing/negotiating the relationship with the physician). These respondents also reported higher resilience scores (i.e., perceived the experience as enhancing/enriching rather than damaging) compared with respondents who perceived the disclosure as inadequate. In sentinel event disclosures, respondents’ perceived adequacy predicted 6% of the variance in moving against behaviors (i.e., pursuing a lawsuit, expressing threats, seeking legal remedies and correction). Thus, when harm was severe, the pursuit of legal remedies was significantly affected by respondents’ perceived adequacy of the disclosure.

In summary, adequacy predicted all effectiveness outcomes, except for trauma and moving outward behaviors (i.e., seeking social support). The results evidence that trauma is completely

**TABLE 2. Effects of the Experimental Manipulations on Respondents’ Perceived Adequacy of the Disclosure**

<table>
<thead>
<tr>
<th>Experimental Manipulations</th>
<th>N</th>
<th>Adequacy Means</th>
<th>SE</th>
<th>$F$</th>
<th>df</th>
<th>$P$</th>
<th>Partial $\eta^2$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sincere apology</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Without</td>
<td>361</td>
<td>2.72</td>
<td>0.04</td>
<td>17.48</td>
<td>1,705</td>
<td>&lt;0.01</td>
<td>0.02</td>
</tr>
<tr>
<td>With</td>
<td>360</td>
<td>2.97</td>
<td>0.04</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Interpersonal adaptation</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Low</td>
<td>362</td>
<td>2.83</td>
<td>0.04</td>
<td>0.47</td>
<td>1,705</td>
<td>0.49</td>
<td>&lt;0.01</td>
</tr>
<tr>
<td>High</td>
<td>359</td>
<td>2.87</td>
<td>0.04</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nonverbal skills</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Low</td>
<td>362</td>
<td>2.21</td>
<td>0.04</td>
<td>480.01</td>
<td>1,705</td>
<td>&lt;0.01</td>
<td>0.41</td>
</tr>
<tr>
<td>High</td>
<td>359</td>
<td>3.49</td>
<td>0.04</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Context</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Harmless hit</td>
<td>360</td>
<td>2.88</td>
<td>0.04</td>
<td>1.18</td>
<td>1,705</td>
<td>0.28</td>
<td>&lt;0.01</td>
</tr>
<tr>
<td>Sentinel event</td>
<td>361</td>
<td>2.82</td>
<td>0.04</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
TABLE 3. Effects of Disclosure Context (Minor Error Versus Sentinel Event) and Respondents’ Perceived Adequacy of the Disclosure on Disclosure Outcomes (Effectiveness)

<table>
<thead>
<tr>
<th>Direct Effects</th>
<th>Effectiveness Variables</th>
<th>Minor Error</th>
<th>Sentinel Event</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N</td>
<td>SD</td>
<td>N</td>
</tr>
<tr>
<td>Coping tactics</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Moving away</td>
<td>3.22</td>
<td>360</td>
<td>0.96</td>
</tr>
<tr>
<td>Moving toward</td>
<td>2.63</td>
<td>360</td>
<td>0.87</td>
</tr>
<tr>
<td>Moving outward</td>
<td>2.91</td>
<td>360</td>
<td>1.04</td>
</tr>
<tr>
<td>Symptomology</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Trauma</td>
<td>1.98</td>
<td>284</td>
<td>1.06</td>
</tr>
<tr>
<td>Resilience</td>
<td>2.70</td>
<td>360</td>
<td>1.00</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Interaction Effects</th>
<th>Adequacy Low</th>
<th>Adequacy High</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N</td>
<td>SD</td>
</tr>
<tr>
<td>Coping tactics</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Moving away</td>
<td>3.86</td>
<td>284</td>
</tr>
<tr>
<td>Moving toward</td>
<td>2.20</td>
<td>284</td>
</tr>
<tr>
<td>Moving outward</td>
<td>3.24</td>
<td>284</td>
</tr>
<tr>
<td>Symptomology</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Trauma</td>
<td>1.98</td>
<td>284</td>
</tr>
<tr>
<td>Resilience</td>
<td>1.98</td>
<td>284</td>
</tr>
</tbody>
</table>

Type I sums of squares models were run to control for unequal sample sizes.

context dependent: Respondents were significantly more likely to experience trauma in response to the disclosure of a sentinel event than in response to the disclosure of a minor error, regardless of how the disclosure was conducted. Respondents were more likely to seek social support after the disclosure of a sentinel event than after the disclosure of a minor error, and even more so if they perceived the sentinel event disclosure as inadequate (Table 3).

**RQ3:** Are there any significant mean differences in respondents’ ratings with respect to sex, level of education, religious orientation, and prior exposure to a medical error?

The analyses revealed only 1 significant but small gender difference in respondents’ moving outward behaviors: female respondents indicated that they would be more likely to engage in social support seeking in response to an error disclosure than male respondents ($M_{female} = 3.29, SE_{female} = 0.11, M_{male} = 2.65, SE_{male} = 0.10, F(1, 235) = 14.23, P < 0.01, partial η² = 0.06)$.

**Extended Analyses: Perceived Satisfaction With The Physician’s Explanation of the Event**

Although the physician’s explanation of the event was high across all conditions, respondents’ perceived satisfaction with the provided account was significantly influenced by the severity context. Respondents who viewed the sentinel event disclosures rated the physician’s explanation of the event as less satisfying than respondents who viewed the minor error disclosures ($M_{sentinel} = 3.05, SE_{sentinel} = 0.04, M_{minor} = 2.63, SE_{minor} = 0.04, F(1, 713) = 50.06, P < 0.01, partial η² = 0.10$). Respondents exposed to the high nonverbal skills condition in the minor error context perceived the physician’s explanation as significantly more satisfying than respondents in the low nonverbal skills manipulation ($M_{low} = 2.38, SE_{low} = 0.04, M_{high} = 3.30, SE_{high} = 0.04, F(1, 713) = 244.97, P < 0.01, partial η² = 0.26$). *Sincere apology and interpersonal adaptability* had no effect on respondents’ satisfaction with the physician’s explanatory account. Thus, across severity contexts, the physician’s explanation of the event was more satisfying to respondents when nonverbal skills were high. Satisfaction with the physician’s explanation significantly influenced all effectiveness outcomes, irrespective of severity. Respondents who perceived the explanation as dissatisfying were significantly more likely to experience trauma (partial η² = 0.01), seek social support (partial η² = 0.10), engage in “moving away” (i.e., relational distancing; partial η² = 0.12) and “moving against” behaviors (i.e., pursuing a lawsuit, expressing threats, seeking revenge; partial η² = 0.10). They were also significantly less likely to be resilient (partial η² = 0.10) and to invest into their relationship with the physician (partial η² = 0.08).

**DISCUSSION**

This study provides further support of the MEDC theoretical framework to predict the effects of communication skills on error disclosure outcomes in a simulated context. The results identified causal pathways between the model’s constructs, implying that communication skills affect respondents’ perceptions of adequacy, which in turn predict a range of beneficial (if high) and
TABLE 4. Updated Medical Error Disclosure Competence (MEDC) Guidelines

In preparation for the disclosure, take into account the following contextual considerations:

1. Decide whether the disclosure is beneficial to the patient’s health condition; if not, consider disclosing the error to a family member instead or disclose it later when the patient is stable.
2. If possible, the patient should bring a care companion to the disclosure.
3. Invite a neutral (external) third party to the disclosure (as a person of trust for the patient).
4. Send the patient a written account after the disclosure so the patient can revisit and better understand the communicated information.
5. Make sure you schedule enough time for the disclosure.
6. Recognize the disclosure as a gradual, sequential conversation (there will be more than 1 meeting with the patient, the patient will need time to process and revisit the information).

DO NOT invite too many care participants to the disclosure—the number of clinicians should not outnumber the patients’ side.

DO NOT disclose an error over the phone.

Enter the disclosure with the motivation to

1. establish a close, trusting relationship with the patient (as a foundation for mutual empathy).
2. maintain a relationship with the patient (opening the door for the patient to return in the future).
3. invest into the relationship with the patient (“paying for” the error in relational terms).
4. demonstrate relational sincerity (take the patient seriously, convey genuine respect).
5. elevate the patient’s needs (e.g., in light of the error’s impact on the patient’s life).
6. alleviate the implications of the error for the patient’s personal and professional life.

DO NOT appear avoidant, distant, or defensive.

Enter the disclosure with informed knowledge about the patient’s

1. informational preferences (i.e., participatory or authoritarian care style).
2. medical history/records.
3. personal preferences (e.g., what type of person the patient is, what the patient doesn’t want).

DO NOT enter any disclosure unprepared.

During the disclosure, demonstrate the following communication skills:

1. Attentiveness (sit in front or next to the patient; directly face the patient; occasionally lean toward the patient; make appropriate eye contact with the patient; look at the patient while s/he talks; show the patient that you are listening to him/her; show the patient that you have made it a priority to be here with him/her; seek personal contact with the patient and take his/her comments seriously; demonstrate a certain devotion to the patient’s needs; show the patient that you truly care for his health and well-being).
2. Composure (humbly try to calm down the situation; use a calm voice; calmly explain what happened; talk with calm confidence).
3. Expressiveness (display a small smile when you enter the room; use a kind, equal tone of voice; talk to the patient very clearly; try to talk in simple terms; be empathic but do not get too emotional—remain informative and clear).
4. Interpersonal adaptability (spontaneously embrace needs or expectations that the patient expresses nonverbally or verbally ad hoc; feel out the patient and see how the patient reacts; for example, be sensitive to the patient’s needs to decide something on his/her own; speak the patient’s language, check whether the patient understands what you are saying; try to enter the patient’s head; get a feel of how much information the patient needs so s/he does not get overwhelmed; see whether the patient needs a hand on the shoulder)—subject to further investigation.

DO NOT introduce physical barriers to the conversation (e.g., a desk in between you and the patient, stacked-up charts, a ringing phone or beeper).

DO NOT use technical language or medical terms that the patient cannot understand.

During the disclosure, make sure to explicitly state the following contents:

1. Be as open, honest, transparent, and authentic in your communication as possible.
2. Admit and assume responsibility for the error (e.g., “I made a mistake”; if applicable, a statement of responsibility should also be conveyed by your supervisor). Make sure to express the responsibility with remorse.
3. Provide an explanation of (a) what happened to this point in time (chronologically), (b) why the patient is there, (c) why and how this could happen, (d) what should have been done, and (e) if applicable, what the patient needs to do now as a consequence of the error (e.g., adjusted behaviors/medication intake etc.). Succinctly and clearly discuss the (a) consequences of the error and (7) corrective steps that will be taken.
4. Discuss what you will do / suggest what to do next to correct the situation and/or repair the consequences of the error.
5. Discuss how you intend to repair the patient’s health (so that the patient feels better).
6. Offer the patient professional psychological support.
7. If applicable, offer the patient financial reparation (that any extra costs will be covered).
8. If applicable, discuss how you intend to repair the patient’s professional life (e.g., offer to inform the patient’s employer).
9. Ensure future forbearance by stating that you will actively engage in an investigation to reflect and draw consequences from this experience to prevent such errors in the future (conveying that the error didn’t happen for nothing, but that it led to improve things).
10. Make sure to deliver the explanation succinctly, clearly, and with a calm voice.
11. Give the patient opportunities to ask questions.

(Continued next page)
harmful (if low) disclosure outcomes (effectiveness). By extension, we hypothesize that when patients perceive a physician’s communication as adequate, they will experience the disclosure as enhancing the relationship; when they perceive it as inadequate, they will distance themselves and, in the context of a sentinel event, be more likely to pursue legal remedies such as a lawsuit. We hypothesize further that physicians’ communicative skills, particularly nonverbal attentiveness expressed during a disclosure, will trigger outcomes on all levels, affecting the well-being of the patient, the physician, their relationship, and the health care institution. Particularly in the context of a sentinel event, the risks for the individual provider and the institution, both financial and reputational, increase substantially if providers do not disclose the error with a nonverbally skilled communication and in a way that conveys a sincere sense of remorse and regret.

Implications for Practice

Three important findings emerged from this study with implications for practice. First, this investigation provides first experimental evidence (subject to further confirmation in additional clinical trials) that the MEDC disclosure guidelines\(^7\) constitute a safe approach for disclosing a range of patient safety events to patients. Second, it appears that nonverbal communication—attentiveness and compositer in particular—is the most important dimension of effective disclosures, irrespective of severity. The good news is that the elements of nonverbal communication can be taught, learned, assessed, and put into practice, with the support of the revised MEDC guidelines (Table 4). Use of educational technologies such as video review, coaching, and small group instruction may also be useful in developing integrated approaches to teaching such skills. Third, although there is a good deal of literature on the role of apology in ameliorating errors, the verbal to teaching such skills. Third, although there is a good deal of literature on the role of apology in ameliorating errors, the verbal

<table>
<thead>
<tr>
<th>TABLE 4. (Continued)</th>
</tr>
</thead>
<tbody>
<tr>
<td>DO NOT ramble around</td>
</tr>
<tr>
<td>DO NOT ignore or deny the error</td>
</tr>
<tr>
<td>DO NOT downplay the situation / make seem everything half as bad</td>
</tr>
<tr>
<td>DO NOT display any arrogance whatsoever</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>TABLE 4. (Continued)</th>
</tr>
</thead>
<tbody>
<tr>
<td>DO NOT ramble around</td>
</tr>
<tr>
<td>DO NOT ignore or deny the error</td>
</tr>
<tr>
<td>DO NOT downplay the situation / make seem everything half as bad</td>
</tr>
<tr>
<td>DO NOT display any arrogance whatsoever</td>
</tr>
</tbody>
</table>

a tissue in response to the patient’s expression of sadness) and 1 linguistic (i.e., slowing down/not slowing down the rate of speaking in response to the patient’s explicit request). These adaptations were evidently too subtle for patients to recognize. Future studies need to assess the role of interpersonal adaptability with more recognizable manipulations to test whether this skill needs to remain or be removed from the MEDC disclosure guidelines.

CONCLUSION

Errors happen, and many of them are inevitable, particularly in a complex health care setting. Some of our errors reach patients and cause preventable harm. The disclosure of these incidents to patients is becoming an ethical and institutional norm across the world. In this context, it is important to recognize that disclosure constitutes the process that will either ameliorate or aggravate the inflicted harm, which direction it takes depends on the way in which the disclosure is communicated.\(^7\),\(^3\),\(^11\),\(^12\) It is widely recognized that good communication can have positive health effects that are as substantial as almost anything that modern medicine can offer with respect to extending people’s lifespans.\(^13\)–\(^16\) Thus, it is of utmost importance for health care professionals to learn how to utilize communication for conducting disclosures that are healing for patients, their relationships with patients, their institutions, and themselves as “second victims”—as a treatment for the unintended harm. This study provides first experimental evidence for a predictive model that supports this pedagogical endeavor.

REFERENCES


© 2018 Wolters Kluwer Health, Inc. All rights reserved.

www.journalpatientsafety.com


