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Supporting Health Care Workers After Medical Error: Considerations for Health Care Leaders

Andrew A. White, MD, Amy D. Waterman, PhD, Patricia McCotter, RN, JD, CPC, Dennis J. Boyle, MD, and Thomas H. Gallagher, MD

Abstract

- **Objective:** To describe how errors personally affect medical professionals, barriers to the implementation of provider support programs, and key issues for hospital leaders to consider when creating a support program.
- **Methods:** Literature review.
- **Results:** Health care providers involved in medical errors experience significant emotional turmoil. Nurses and physicians report feeling anxious, upset, guilty, depressed, and scared after an error, often for prolonged periods. Furthermore, job satisfaction and performance may decline. Unfortunately, providers are often reluctant to discuss these emotions with colleagues and may not seek support from others as they cope with these emotions. Recent evidence shows that physicians are dissatisfied with the emotional support they receive from health care institutions after medical errors. Multiple barriers present challenges for health care leaders to designing effective support programs, including physician perceptions of efficacy, privacy, and availability. However, a few malpractice insurers and large medical centers have created programs that successfully provide emotional support to providers after errors through one-on-one counseling.
- **Conclusion:** Medical professionals frequently experience emotional distress after medical errors and often do not receive support for coping with this distress. Leaders at medical centers and malpractice insurers should consider providing counseling services and other means of support to health care providers involved in medical errors.

The Institute of Medicine report *To Err is Human* awakened medical providers, health care administrators, and the lay public to the substantial incidence and cost of medical errors in the United States [1]. Although research has documented the considerable physical and emotional suffering of patients and families involved in medical errors, the emotional impact of medical errors on health care

providers is sometimes overlooked [2]. After involvement in medical errors, physicians and nurses often experience intense negative feelings that can affect job performance or even result in psychiatric illness [3]. Providers often struggle to identify sources of confidential and compassionate support after errors. Programs to help health care providers manage the emotional consequences of errors have lagged behind important prevention efforts. In one recent survey, 90% of physicians felt that hospitals and health care organizations failed to adequately support them in coping with stress associated with medical errors [4].

Health care executives and risk managers recognize that substantial stress accompanies medical errors, but no clear guidelines describe the best way to support providers after an error. However, emerging lessons from developing support programs can point leaders towards strategies for enhancing the institutional response to medical error [5]. The aims of this article are to (1) review the current understanding of the emotional impact of medical errors on health care providers; (2) describe the needs of providers in these situations and the barriers to addressing these needs; and (3) present possible ways for health care leaders to address these needs.

The Emotional Impact of Errors on Physicians

Until the end of the 20th century, the emotional impact of errors on physicians was rarely discussed in academic literature or even amongst providers themselves [6,7]. Although physicians have always understood the practice of medicine to be error-prone [8], unrealistic expectations on the part of clinicians, patients, and society can foster an environment in which mistakes come to represent a moral failing or cause for stigmatization [9]. Responses to error often focus on mitigating the consequences to the patient, reducing the chances of a malpractice suit, and learning cognitive and technical

From the Department of Medicine, University of Washington, Seattle, WA (Drs. White and Gallagher); Department of Medicine, Washington University School of Medicine, St. Louis, MO (Dr. Waterman); Risk Management, Physicians Insurance A Mutual Company, Seattle, WA (Ms. McCotter); and Denver Health Medical Center, University of Colorado, Denver, CO (Dr. Boyle).

lessons to prevent recurrence [10]. However, without collective recognition and acceptance of the powerful emotions surrounding errors, health care providers have often coped with these feelings in isolation [11].

Initial descriptions of the emotional impact of medical errors were limited to personal narratives and observations by sociologists. In 1984, Hilfiker [6] described the aftermath of an obstetrical error he committed and his difficulty finding an outlet for his emotions. He suffered profound guilt and anxiety, but discovered his colleagues avoided discussing these feelings. Contemporaneous descriptions of medical training by sociologists mirrored Hilfiker's portrayal of the culture of private practice. Both medical and surgical residents experienced intense negative emotions associated with an error, but lacked forums for healthy, nonjudgmental, and open discussion of their mistakes [12,13].

Subsequent studies confirmed the common experience that physicians suffer after a mistake. In structured interviews of internists and medical subspecialists, all reported dysphoric feelings after an error, with many suffering feelings of fear, guilt, anger, embarrassment, and humiliation that persisted for months or years [10]. In interviews of family physicians asked to recall their worst error, similar themes emerged. Frequently reported emotions included self-doubt (96%), disappointment (93%), self-blame (86%), shame (54%), and fear (50%) [11]. These powerful emotions arise in part from the deep sense of vocation and high standards espoused by most clinicians. Malpractice suits and administrative investigations can dramatically heighten and prolong these emotions by forcing the involved provider to relive negative events and feelings for months or years [3].

In the largest and most comprehensive survey to date on the topic of medical errors, 3171 physicians from multiple specialties in the United States and Canada were surveyed about the emotional impact of errors [4]. Similar to prior studies, physicians reported anxiety about future errors (61%), loss of confidence (44%), sleeping difficulties (42%), reduced job satisfaction (42%), and harm to their reputations (13%). Of note, specialty and nationality did not influence the emotional impact of errors, suggesting that this issue is important across all care settings. This study also determined that near misses cause substantial emotional suffering for medical professionals. At many facilities, near misses are probably underreported [14], suggesting that counseling systems coupled solely to error reporting will fail to identify some providers who would benefit from emotional support.

This survey also identified groups who were more likely to suffer adverse emotional effects after an error [4]. These included physicians who were dissatisfied with how their past disclosure of serious error went, physicians who perceived themselves to be at an elevated risk for malpractice

lawsuits, and female physicians. Qualitative studies have also identified beliefs and personality traits that may modulate the degree of distress after an error [10]. For instance, physicians expressing comfort with uncertainty or limited faith in the ability of medical intervention to control patient outcomes may have decreased stress after errors. Conversely, providers who consider a mistake to be a reflection of their overall clinical competence may have stronger negative emotional responses. Recognizing or even screening for these factors may help target interventions to the clinicians with the greatest need.

Errors contribute to the already high stress of medical work, possibly exacerbating the physician's increased risk of depression [15], substance abuse [16], and suicide [17]. For some providers, the lingering emotional impact of an error can lead to disabling psychiatric disease, such as posttraumatic stress disorder [3]. The emotional impact of errors can also substantially affect physician job performance. In a prospective, longitudinal study of residents, self-perceived errors were associated with reduced quality of life, increased burnout, and depression [18]. Interestingly, those who experienced burnout reported increased rates of errors in subsequent months. This finding suggests a vicious cycle in which errors and negative emotions beget each other. Thus, programs designed to break this cycle and support health care workers following errors may ultimately improve patient safety, malpractice risk, staff retention, and provider well-being [19].

Although few investigators have focused on nurses, the existing literature suggests that nurses also suffer strong negative emotions following involvement in a medical error. Qualitative summaries of interviews report a similar range of emotions to those expressed by physicians: shame, guilt, anguish, anxiety, apprehension, and fear [20–23]. In one study comparing emotional responses of nurses, physicians, and pharmacists following a medication error, nurses were most likely to report negative emotions and fear of disciplinary action or punishment [21].

Like other health care providers, many nurses believe they are subjected to expectations of perfection [24]. However, unlike physicians, nurses are especially concerned about disciplinary action, including termination. In many settings, nurses are not protected by peer review and due process rules that shield physicians from swift dismissal. In one survey of nurses' attitudes regarding medication errors, 20% of nurses admitted they had failed to report a medication error because of fear they would be subject to disciplinary action or even lose their job [25]. Furthermore, nurses agreed that some errors are not reported because of fears regarding a negative reaction by the nurse manager (77%) or peers (61%). Factors that inhibit open reporting and discussion of error not only prevent health care leaders from

understanding patient safety issues at their facility, they also isolate suffering providers and erode institutional trust [5]. Promoting culture change to reduce such punitive environments is an important element of providing emotional support for all health care workers.

How Physicians Cope with Medical Error

Understanding the needs and coping habits of physicians after an error may inform the design of support programs. In one survey, family physicians identified 4 needs after an error: the opportunity to talk to someone about the mistake (63%), reaffirmation of their competence (59%), validation of their decision-making process (48%), and reassurance of their self-worth (30%) [11]. In addition, clinicians may need to disclose the error to the patient and study the error for lessons learned in order to promote emotional healing [2,6]. These methods of coping with the aftermath of an error depend on the ability to communicate with others in an environment that facilitates safe and open discussion about errors [26].

The process of medical education can sometimes lead trainees to develop coping mechanisms that are maladaptive. Traditionally, medical trainees have been gradually socialized to expect perfection of themselves and others [27]. This socialization process can hinder the development of open and supportive forums to help physicians discuss and cope with errors. As a result, some residents learn to manage the vulnerability and discomfort of making mistakes through techniques such as denial, distancing, and discounting [13]. By asking educators to volunteer details of their own errors and to engage in constructive and sensitive discussions of errors, residents may develop positive coping strategies.

Accepting responsibility for errors appears to be an important step in maintaining healthy coping habits. Wu et al [28] found that residents who accepted responsibility for their errors were more likely to enact constructive changes in their practice than those who distanced themselves or utilized escapism. However, accepting responsibility heightened the distress residents experienced after an error. Attending physicians may help residents cope with errors by supporting the resident in accepting responsibility and by providing reassurance that emotional distress is normal. In a series of structured interviews with residents recalling a specific error, respondents expressed a common need for acknowledgment that more experienced physicians had been involved in similar errors [29].

Several factors can limit the ability of attending physicians to provide effective support to trainees following errors. Some studies have suggested that trainees hesitate to tell their attendings about errors. In one survey asking residents to describe their most significant mistake, only 54% reported the error to their attending physician [30]. However, residents are often willing to discuss errors with

their peers. West et al [18] reported that 83% of residents discussed a recent error with another resident versus 54% who discussed the error with an attending. Health care organizations might consider using peer groups to support trainees. In addition, attendings may not have had formal training in supporting medical students and residents after errors and also may not know where to turn for help in managing their own emotional distress. Medical center leadership should develop programs to support their senior physicians, who then will be better equipped to provide support for the rest of the health care team.

Understanding how trainees cope with errors may not completely generalize to the broader population of independently practicing physicians. However, it is likely that the maladaptive coping mechanisms described in training evolve into a persistent reliance on isolation and silence. In the extreme form, some providers cope with errors by leaving the practice of medicine entirely [31,32]. Others cope with errors by becoming unnecessarily cautious in subsequent encounters, resulting in overuse of tests and procedures [33]. Such maladaptive coping mechanisms increase health care costs and have the potential to harm patients. Altering these patterns will require changing both the medical culture and the habits of individual physicians. It is also possible that some physicians develop constructive coping strategies that do not depend on seeking support and validation from others within health care. Control over the work environment, spirituality, and support from family contribute to general physician well-being, although the specific role for these factors in addressing the emotional impact of errors is not known.

Barriers to Seeking Support

Physicians perceive that few institutions meet their emotional needs after an error. Among a broad cross-section of physicians from the United States and Canada, 90% agreed that hospitals and health care organizations fail to adequately support them in coping with stress associated with medical errors [4]. One form of providing support for health care workers after errors is through formal counseling programs. Eighty-two percent of physicians in this survey expressed interest in counseling after a serious error. However, they also reported significant barriers to pursuing counseling, including reluctance to take time away from work, the belief that counseling would not help, concerns that counseling sessions would not remain confidential or separate from their staff credentials record, concerns that counseling might impact malpractice insurance rates, and the fear that colleagues might judge them negatively.

Institutions may be able to address some of these barriers, although the evidence base regarding the most effective approaches is early in its development. First, institutional leaders and risk managers can educate physicians that

therapeutic conversations with a counselor are generally protected from discovery in the event of a lawsuit. Such protection can be arranged by classifying the conversation as part of quality improvement activities or by establishing a protected patient-provider relationship. Because hospitals may contract with counselors outside or inside the medical center, legal consultation is advised to review these arrangements to ensure the conversations are in fact protected. Offering geographically convenient, on-demand counseling services may also encourage use. Additionally, protecting providers from patient care duties in the aftermath of an error and during ongoing counseling could improve utilization. Ultimately, these steps require financial support because providers may be reluctant to access important services if they bear the cost of lost wages. Finally, institutions can demonstrate respect for health professional privacy by guaranteeing that counseling records remain outside personnel and medical staff credentialing files.

A second form of support following errors comes from discussing the event with peers. Clinicians may be unsure of who to speak with after errors, a problem that is often exacerbated by recommendations from lawyers and risk managers to refrain from discussing errors with peers outside the peer review or quality improvement process. In the survey by Newman [11], only one third of respondents cited a colleague as an important source of support. Furthermore, when presented with a hypothetical error scenario involving a colleague, only one third of respondents would offer unconditional support. Similarly, Christensen et al [10] found that internists viewed disclosure of emotional issues to peers as unhelpful and even threatening. Although morbidity and mortality conferences might be a useful forum for discussing emotional issues with peers, such conferences have traditionally involved rituals of self-blame and even humiliation that can exacerbate negative emotions [12,34,35].

Opportunities and Challenges for Institutional Leaders

Health care organizations have an important opportunity to improve their response to employees struggling with the emotional impact of medical errors (Table 1). However, the traditional coping habits of providers may change slowly, limiting utilization of well-designed support programs. Furthermore, substantial expertise is required to ensure new programs do not oppose legal, regulatory, and business objectives. Important steps in meeting these challenges are to engage influential leaders, to strengthen trust between management and medical staff, and to commit resources to support services.

Successful plans to support physicians and nurses will necessarily start with leadership at the top of organizations. At hospitals, this starts with a commitment from hospital

Table 1. Key Considerations for Establishing Support Programs for Health Professionals Involved in Medical Errors

Health care providers often avoid discussing errors with others	Leaders can facilitate open discussion about errors by acknowledging that mistakes are inevitable and by sharing their own experience with errors
	Emphasizing that conversations with counselors are protected from legal discovery may encourage therapeutic interactions
Strong negative emotions have been documented by professionals in all medical fields after errors of any severity	Risk managers and hospital leaders should expect to encounter the emotional impact of errors in all health care settings
	Because providers have traditionally coped in silence, many providers may not voluntarily reveal the stress they face
Providers often perceive practical barriers to seeking emotional support	Support programs may be enhanced by efforts to improve convenience, expand hours of access, and provide relief from clinical duties to permit attendance
Many providers do not voluntarily use available resources because of concerns about efficacy and privacy	An opt-out rather than opt-in approach to support services might improve utilization
	Institutions should guarantee that therapeutic conversations remain confidential
Ongoing internal investigations can exacerbate negative emotions by forcing providers to relive errors	Streamlining and coordinating efforts by risk management, peer review systems, and human resources may improve how providers perceive institutional response to errors

leadership, who in turn should collaborate with departmental and medical staff leaders. Many physicians in the United States work in solo and small group practices and will not fall under the auspices of a hospital leadership or large group practice management structure committed to such improvements. However, risk managers and executives at malpractice insurance companies have a vested interest in developing support programs for the solo practitioners and small institutions they insure.

We propose that organizations should commit resources to supporting clinicians not only because of the moral value of recognizing and alleviating suffering, but because such investments in human capital may ultimately promote business goals, improve patient safety, and reduce risk. Strategies to reduce provider distress may also benefit organizations by allowing nurses and physicians to return to work in a more resilient and focused state of mind, thereby averting further errors [18]. Furthermore, the emotional state of health care providers involved in litigation may affect their capacity as a witness and may detract from their defense. As recently

Table 2. Possible Sources of Support for Health Care Providers After Medical Errors

<p>Risk managers and legal defense team provide emotional support</p> <p>Pros: Typically first to respond, will have longitudinal relationship with provider</p> <p>Cons: Risk managers, lawyers unlikely to have the training or time to meet ongoing emotional needs of health professionals. Risk managers and lawyers may need to deliver information and advice that is emotionally disruptive, even as it serves the legal interests of their client</p> <p>Critical Incident Stress Management (CISM, "Debriefing")</p> <p>Pros: Training is readily available, well-suited to mass casualty scenarios</p> <p>Cons: Not specifically developed or adapted for health care scenarios, can exacerbate stress if performed too early, providers at risk for feeling blamed in large group setting</p> <p>Physician support groups</p> <p>Pros: Have benefited physicians facing other emotionally and ethically challenging issues</p> <p>Cons: Anecdotes suggest such groups are difficult to gather and maintain, providers may feel exposed and uncomfortable before peers</p> <p>Referral to Employee Assistance Program (EAP)</p> <p>Pros: Utilizes benefits commonly available at many large employers</p> <p>Cons: Availability may be limited, particularly in small group/ solo practice setting, available staff may not be specifically prepared to aid health care professionals, focus on well-being may not adequately address the intensity and duration of emotional suffering</p> <p>Referral to colleague</p> <p>Pros: Inexpensive if counselor time is volunteered, colleague may be best suited to understand contextual and technical issues</p> <p>Cons: Providers may have concerns about availability and confidentiality, providers must overcome traditional avoidance of discussing errors with peers</p> <p>Referral to professional counselor or psychiatrist</p> <p>Pros: Most prepared to changing needs of health care providers</p> <p>Cons: Expense, may be difficult to locate mental health providers with expertise or interest in counseling health care providers</p>	<p>some mistakes are inevitable and to publicly recognize that errors typically arise during well-intentioned conduct compromised by faulty systems. Established forums for discussing a variety of emotionally and ethically challenging topics, such as the Schwartz Center Rounds, may provide additional structure or resources to facilitate general discussions of medical error and how providers respond to medical error [36].</p> <p>Organizations should also be aware that some patient safety activities can inadvertently exacerbate health care workers' distress after errors. For instance, tools such as root cause analysis may aid process improvement [37], but their use forces physicians and nurses to relive and examine their mistakes in front of others. Investigations may unintentionally exacerbate emotional trauma when they are repeated, poorly timed, disorganized, confusing, or unsympathetic. Reporting required by federal and state regulations and accrediting entities also risks aggravating emotional responses. For instance, new reporting requirements for certain types of adverse health events to the Department of Health in Washington State adds a layer of potential scrutiny and discomfort to the aftermath of an error despite the focus on quality improvement [38].</p> <p>Although regulatory and legal ramifications of medical error are often unavoidable, health care institutions should strive to limit the emotional impact of internal investigative activities by unifying and streamlining inquiries. Clear, consistent, and transparent policies describing how the institution investigates and responds to errors can help nurture trust between management and medical staff [3,39]. Although organizations cannot exclude disciplinary action when conduct transgresses legal and ethical boundaries, organizations can maintain the trust of employees by guaranteeing fair, respectful, and thoughtful responses to errors.</p>
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argued by Denham [5], the health care institution becomes the "third victim" after the patient and provider when employees sense that they may be neglected, abandoned, or punished by the institution after a medical error.

Changing medical culture regarding response to errors is a major long-term challenge for health care leaders. A key first step towards promoting such culture change is for executives to acknowledge that despite striving for excellence,

some mistakes are inevitable and to publicly recognize that errors typically arise during well-intentioned conduct compromised by faulty systems. Established forums for discussing a variety of emotionally and ethically challenging topics, such as the Schwartz Center Rounds, may provide additional structure or resources to facilitate general discussions of medical error and how providers respond to medical error [36].

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Models for Providing Emotional Support

There are several possible models for providing support to health care workers after an error, each with different pros and cons (Table 2). The available literature provides little, if any, rigorous assessment of these models. In some cases, our suggestions are derived from expert opinion or unpublished reports from single institutions because no higher level of evidence yet exists. Therefore, the following models are provided as options for health care leader to consider, rather than as guidelines. This nascent state of the existing empiric literature highlights the critical need for further research in this area before firm recommendations can be made.

Support from Risk Managers

In some organizations, risk managers may provide the bulk of the posterror counseling and support to providers. The first contact between a risk manager and the emotionally

affected provider is critical for establishing trust and initiating emotional support. By serving as a guide and advocate, risk managers help to diffuse the stress brought about by subsequent investigative and legal processes. Risk managers also typically play an important role in coaching providers on error disclosure and the immediate response to an error. However, a major drawback of relying on risk managers as the primary source of support for health care workers after errors is that they generally do not have the training or time to meet the ongoing emotional needs of physicians and nurses. Ending the historical reliance on the good intentions of risk managers to provide ongoing emotional support will require investing in new systems and people trained to counsel health care providers after errors.

Critical Incident Stress Management

At some institutions, risk managers and other counselors have been trained to participate in Critical Incident Stress Management (CISM), an approach developed in law enforcement for debriefing after intensely stressful incidents [40]. For instance, at the MultiCare Health System in Tacoma, WA, teams were trained to guide group debriefing of traumatic events. These meetings are confidential and protected from legal discovery by adopting the CISM program as part of the facility's quality improvement plan. Attendance at sessions is voluntary but compensated by paid leave time during the meeting. These teams are available at any time to promptly debrief employees, much in the way rapid response teams respond immediately to medical emergencies. Although there are no published outcomes demonstrating effectiveness in the health care setting, similar activities are widely used in law enforcement and aviation.

Anecdotal reports of CISM at this one institution are positive, but substantial limitations should be considered. First, these techniques were not developed to specifically address stress from medical errors. Second, CISM is primarily designed for large group debriefing, a setting that may make many providers uncomfortable or even prompt blaming. Lastly, there have been reports indicating that premature or forceful debriefing efforts may exacerbate, rather than calm, emotional distress [41]. Nonetheless, institutions that are already prepared to provide these services in other traumatic scenarios may find they are also helpful to health care workers after some errors.

Physician Support Groups

Physician support groups have been proposed as a way to support physicians after errors [10]. Because some physicians may feel that only fellow physicians can fairly scrutinize their errors, limiting groups to physicians might address one barrier to accepting emotional support [12,13,42]. Support groups, such as Balint groups (www.balint.co.uk), are fo-

rum for physicians to discuss and acknowledge emotionally challenging patient communication dilemmas. However, it is unclear whether these groups are effective for providing support in the immediate aftermath of an error. One academic medical center attempted to develop such support groups as an outgrowth of its expertise in counseling physicians after boundary violations. However, group leaders found that many physicians were unwilling to discuss their emotions before their peers and did not utilize the voluntary service. Although sufficient mentors volunteered to participate by sharing past errors and coping strategies, the program did not continue in part because the intended audience resisted the group setting (B. Swiggart, personal communication, December 2007). Outside large medical centers, the critical mass of willing participants would be even harder to find. Further study is required to determine what role support groups should play in counseling providers.

Litigation Assistance Programs

A few malpractice insurers, including Physicians Insurance and COPIC, have developed litigation assistance programs that provide confidential educational and emotional support for physicians and their spouses involved in medical malpractice litigation. These sessions may include discussions of litigation stress syndrome or mock trials. In addition, some companies provide financial support for counseling as needed. However, most malpractice insurers rarely offer these services to clinicians not involved in litigation.

Routine Counseling After Serious Errors

A few health care institutions offer individual counseling to all health care providers involved in serious errors [43]. In such a model, the involved provider, a risk manager, or a department leader could initiate the counseling process. Because physicians often cope with the emotional impact of errors in silence, they may show few outward signs of emotional distress. Therefore, it may be important for risk managers to offer counseling services to every provider they encounter. Furthermore, because voluntary participation appears to limit use of counseling services, an opt-out strategy, rather than opt-in strategy, might increase utilization without encroaching on the provider's freedom of choice. Although some centers provide counseling only when health care workers are in crisis, a more proactive approach could help prevent providers' emotional distress from reaching such a serious level.

The emotional needs of a provider will evolve after an error. The first meeting with a counselor is an important opportunity to assess the provider's initial response to the event. Goals for this meeting might include normalizing the provider's reaction, helping the provider to recognize and acknowledge their feelings, and preparing the provider

for ongoing negative emotions and thoughts. Subsequent meetings would adjust to meet the provider's needs and schedule. Depending on the assessment of the counselor, additional resources could be mobilized as appropriate. This might include referral for long-term psychiatric care or use of physician-wellness services, such as mindfulness training, which may help restore resilience and job satisfaction [44]. Many risk managers are aware of psychiatrists in their community who have cared for physicians involved with errors and litigation. Health care organizations should seek to involve these specialized individuals in the design of their support system, both to solicit advice and to maintain a referral option outside the medical center for providers who may be uncomfortable receiving ongoing counseling through the medical center.

The specialty of the counselor may not be critical to their effectiveness. Anecdotal reports indicate that initial counseling can be successfully provided by professionals in psychiatry, psychology, and social work (J. Kendall and R. Hofeldt, personal communication, December 2007). Physicians outside the mental health fields may also be valuable counselors, provided the individual is held in high esteem and motivated to provide unconditional emotional support [45]. Although sociologic research suggests physicians may identify best with other physicians, no experimental evidence supports the exclusive use of professionals from one discipline. Nonphysician counselors may be better able than physician counselors to focus on the health care worker's emotional responses rather than on the technical details of the event. Thus, the interest and experience of the counselor may be a more important determinant of their effectiveness than the counselors' professional affiliation or background.

Experience in counseling health care providers rarely arises without prolonged institutional commitment. Risk managers seeking to hire counselors without dedicated institutional resources may encounter boundary and practical issues. Clinical departments may vary in their willingness to contribute to services, and it may be awkward for risk managers to request counseling services on behalf of a provider if the department head is not in agreement about the value of such services. Additionally, it is difficult to predict the appropriate duration of counseling, so cost may be difficult to specify.

At some centers, counseling programs may be funded through the Employee Assistance Program (EAP). Although this helps to provide equal access to services, there are potential disadvantages. For instance, risk managers may have limited control over who is selected by the benefit program to counsel the provider, resulting in a referral to a counselor without specific experience or interest in this issue. There may be restrictions on the night and weekend availability of EAP services. Furthermore, solo practitioners are unlikely to have EAP benefits unless they are offered as part of

their health insurance. Ideally, such services would be provided by malpractice insurers, although other models may emerge. For instance, professional bodies or consortiums or solo and small group practices could form purchasing groups to distribute the cost of counseling services.

Summary

Physicians and nurses suffer substantially after involvement in errors and desire more support from colleagues and institutions. The emotional impact on individual practitioners may eventually limit the success of health care organizations and the satisfaction of employees, medical staff, and patients. As the patient safety movement continues to promote transparency in health care, addressing the emotional impact of errors should become a more accepted and recognized component of quality improvement initiatives. Although several models may prove successful, we believe malpractice insurers and large medical centers should consider providing funding for counselors who can provide emotional support to providers after errors. As new systems are developed, we hope that rigorous descriptions and evaluations will guide their dissemination, ultimately helping to determine standards of compassionate support that health care workers can depend upon dealing with the emotional aftermath of a medical error.

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Corresponding author: Thomas H. Gallagher, MD, Univ. of Washington School of Medicine, 4311-11th Ave NE, Ste. 230, Seattle, WA 98105, thomasg@u.washington.edu.

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References

1. Kohn LT, Corrigan JM, Donaldson MS. To err is human: building a safer health system. Washington (DC): National Academy Press; 2000.
2. Goldberg RM, Kuhn G, Andrew LB, Thomas HA Jr. Coping with medical mistakes and errors in judgment. *Ann Emerg Med* 2002;39:287-92.
3. Hewett D. Supporting staff involved in serious incidents and during litigation. In: Vincent C, editor. *Clinical risk management: enhancing patient safety*. 2nd ed. London: BMJ Books; 2001:481-95.
4. Waterman AD, Garbutt J, Hazel E, et al. The emotional impact of medical errors on practicing physicians in the United States and Canada. *Jt Comm J Qual Patient Saf* 2007;33:467-76.

5. Denham C. TRUST: the 5 rights of the second victim. *J Patient Saf* 2007;3:107–19.
6. Hilfiker D. Facing our mistakes. *N Engl J Med* 1984;310:118–22.
7. Rowe M. Doctors' responses to medical errors. *Crit Rev Oncol Hematol* 2004;52:147–63.
8. Hippocrates. *Aphorisms*. Whitefish (MT): Kessinger Publishing; 2004.
9. Wu AW. Medical error: the second victim. *West J Med* 2000;172:358–9.
10. Christensen JF, Levinson W, Dunn PM. The heart of darkness: the impact of perceived mistakes on physicians. *J Gen Intern Med* 1992;7:424–31.
11. Newman MC. The emotional impact of mistakes on family physicians. *Arch Fam Med* 1996;5:71–5.
12. Bosk CL. *Forgive and remember: managing medical failure*. Chicago: University of Chicago Press; 1979.
13. Mizrahi T. Managing medical mistakes: ideology, insularity and accountability among internists-in-training. *Soc Sci Med* 1984;19:135–46.
14. Garbutt J, Waterman AD, Kapp JM, et al. Lost opportunities: how physicians communicate about medical errors. *Health Aff (Millwood)* 2008;27:246–55.
15. Stanton J, Caan W. How many doctors are sick? *BMJ* 2003;326:S97.
16. Schernhammer ES, Colditz GA. Suicide rates among physicians: a quantitative and gender assessment (meta-analysis). *Am J Psychiatry* 2004;161:2295–302.
17. Schernhammer E. Taking their own lives—the high rate of physician suicide. *N Engl J Med* 2005;352:2473–6.
18. West CP, Huschka MM, Novotny PJ, et al. Association of perceived medical errors with resident distress and empathy: a prospective longitudinal study. *JAMA* 2006;296:1071–8.
19. Relieving physician's stress aids retention, improves care. *Exec Solut Healthc Manag* 1998;1:11–3.
20. Rassin M, Kanti T, Silner D. Chronology of medication errors by nurses: accumulation of stresses and PTSD symptoms. *Issues Ment Health Nurs* 2005;26:873–86.
21. Wolf ZR, Serembus JF, Smetzer J, et al. Responses and concerns of healthcare providers to medication errors. *Clin Nurse Spec* 2000;14:278–90.
22. Arndt M. Nurses' medication errors. *J Adv Nurs* 1994;19:519–26.
23. Crigger NJ, Meek VL. Toward a theory of self-reconciliation following mistakes in nursing practice. *J Nurs Scholarsh* 2007;39:177–83.
24. Crigger N. Two models of mistake-making in professional practice: moving out of the closet. *Nurs Philos* 2005;6:11–8.
25. Mayo AM, Duncan D. Nurse perceptions of medication errors: what we need to know for patient safety. *J Nurs Care Qual* 2004;19:209–17.
26. Gallagher TH, Waterman AD, Ebers AG, et al. Patients' and physicians' attitudes regarding the disclosure of medical errors. *JAMA* 2003;289:1001–7.
27. Leape LL. Error in medicine. *JAMA* 1994;272:1851–7.
28. Wu AW, Folkman S, McPhee SJ, Lo B. How house officers cope with their mistakes. *West J Med* 1993;159:565–9.
29. Engel KG, Rosenthal M, Sutcliffe KM. Residents' responses to medical error: coping, learning, and change. *Acad Med* 2006;81:86–93.
30. Wu AW, Folkman S, McPhee SJ, Lo B. Do house officers learn from their mistakes? *JAMA* 1991;265:2089–94.
31. Williams ES, Konrad TR, Scheckler WE, et al. Understanding physicians' intentions to withdraw from practice: the role of job satisfaction, job stress, mental and physical health. *Health Care Manage Rev* 2001;26:7–19.
32. Shanafelt TD, Bradley KA, Wipf JE, Back AL. Burnout and self-reported patient care in an internal medicine residency program. *Ann Intern Med* 2002;136:358–67.
33. Charles SC, Warnecke RB, Wilbert JR, et al. Sued and non-sued physicians. Satisfaction, dissatisfactions, and sources of stress. *Psychosomatics* 1987;28:462–8.
34. Pollack C, Bayley C, Mendiola M, McPhee S. Helping clinicians find resolution after a medical error. *Camb Q Healthc Ethics* 2003;12:203–7.
35. Orlander JD, Barber TW, Fincke BG. The morbidity and mortality conference: the delicate nature of learning from error. *Acad Med* 2002;77:1001–6.
36. The Schwartz Center Rounds. Available at www.theschwartzcenter.org/programs/rounds.html. Accessed 17 Apr 2008.
37. White AA, Pichert JW, Bledsoe SH, et al. Cause and effect analysis of closed claims in obstetrics and gynecology. *Obstet Gynecol* 2005;105(5 Pt 1):1031–8.
38. Adverse health events and incident reporting systems. RCW 70.56.020 (WA 2006). Available at <http://apps.leg.wa.gov/RCW/default.aspx?cite=70.56>. Accessed 18 Apr 2008.
39. Firth-Cozens J. Organisational trust: the keystone to patient safety. *Qual Saf Health Care* 2004;13:56–61.
40. Reese JT, Horn JM, Dunning C, editors. *Critical incidents in policing*. Washington (DC): US Dept. of Justice, Federal Bureau of Investigation; 1991.
41. Kenardy JA. Debriefing post disaster: follow-up after a major earthquake. In: Raphael B, Wilson JP, editors. *Psychological debriefing: theory, practice, and evidence*. New York: Cambridge University Press; 2000.
42. Rosenthal MM. *The incompetent doctor: behind closed doors*. Buckingham: Open University Press; 1995.
43. West CP. How do providers recover from errors? AHRQ WebM&M. Available at www.webmm.ahrq.gov/case.aspx?caseID=167. Accessed 17 Apr 2008.
44. Epstein RM. Mindful practice. *JAMA* 1999;282:833–9.
45. O'Reilly KB. New culture for coping: turning to peer support after medical errors. *American Medical News* 2006 Sept 11. Available at www.ama-assn.org/amednews/2006/09/11/prl20911.htm. Accessed 17 Apr 2008.

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