

Support for healthcare workers and patients after medical error through mutual healing: another step towards patient safety

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ABSTRACT

Background Medical errors, especially those resulting in patient harm, have a negative psychological impact on patients and healthcare workers (HCWs). Healing may be promoted if both parties are able to work together and explore the effect and outcome of the event from each of their perspectives. There is little existing research in this area, even though this has the potential to improve patient safety and wellness for both HCWs and patients.

Methods Using a patient-oriented research approach with constructive grounded theory methodology, we examined the potential for patients and HCWs to heal together after harm from a medical error. Individual interviews were conducted and transcribed verbatim. We conducted concurrent data collection and analysis according to grounded theory principles. With our findings, we created a framework and visual breakdown of the communication process between patients and HCWs.

Results Our findings suggest that, after a medical error causing harm, both patients and HCWs have feelings of empathy and respect towards each other that often goes unrecognised. Barriers to communication for patients were related to their perception that HCWs did not care about them, showed no remorse or did not admit to the error. For HCWs, communication barriers were related to feelings of blame or shame, and fear of professional and legal consequences. Patients reported needing open and transparent communications to help them heal, and HCWs required leadership and peer support, including training and space to talk about the event(s).

Discussion Our resulting framework suggests that if there was an opportunity for an open and purposeful conversation early or before increased emotional suffering, there might be an opportunity to bridge the barriers, and help patients and HCWs heal together. This, in turn, contributes to improved health quality and patient safety.

INTRODUCTION

This study was inspired by the story (<https://www.patientsafetyinstitute.ca/en/toolsResources/HealthcareProviderStories/pages/patient-and-provider-come-together-in-wake-of-patient-safety-incident.aspx>; <https://youtu.be/Q3LRQ5MjyUw>) of a patient whose mother died due to a medication error. She maintains healing from her grief was delayed

WHAT IS ALREADY KNOWN ON THIS TOPIC

⇒ There has been increasing recognition within healthcare organisations that their workers' well-being is suffering after medical error resulting in patient harm and that there is insufficient emotional and psychological support for them. At the same time, there has not been any concerted effort to bring patients who were harmed together with the health professional involved, nor to help in the healing outside of the more formal disclosure process, in the Canadian context. To our knowledge, there are no formal studies focused on mutual healing conversations between HCWs and patients following a medical error resulting in patient harm, nor evidence of any existing programmes addressing this issue. However, there is a significant amount of information in the form of study results, incidental findings, testimonials and editorial comments that could support such a programme.

WHAT THIS STUDY ADDS

⇒ Our findings indicated that it can be valuable to cultivate mutual healing conversations. When a medical error causes harm, these conversations could provide an opportunity to find common ground, to gain perspective of each other's experience and strive to recognise each other's humanity. This opportunity for healing after harm contributes to openness and transparency, which in turn can improve patient safety through learning.

until 2 years later when she met informally with the healthcare worker (HCW) who felt ultimately responsible for the error. The HCW also asserted that the meeting was the catalyst for him to begin to cope with his shame and guilt about the trauma:

We realized that both of us had been on a journey of grief, shame, and fear. But we had been kept apart from each other by a healthcare system that did not yet understand the importance of a restorative approach to healing after

**HOW THIS STUDY MIGHT AFFECT RESEARCH, PRACTICE OR POLICY**

⇒ Future studies might focus on how organisations can best support both patients and healthcare workers after a medical error throughout the incident management process and, more specifically, explore how to surmount the barriers to healing together after harm. Our collaborations with the Canadian Patient Safety Institute (now Healthcare Excellence Canada) and Patients for Patient Safety Canada have contributed to a subsequent project based on our findings and recommendations, to build a programme for healing after harm. A demonstration project is planned for 2022, which will be the foundation for scaling and spreading this work across Canada.

harm. Bringing us together made healing so much easier (Davies *et al*, p. 236).¹

It is well known that HCWs make decisions that affect patients' lives while under pressure to do better, faster and with fewer resources. These circumstances can lead to medical errors, often because of a system failure, and occasionally due to human error. Although patient harm is not always a result of medical error, even the potential of harm can be upsetting and uncover feelings of distress for HCWs, which can be detrimental to their mental health.^{2–8} For patients, caregivers and family (hereafter referred to as 'patients'), medical errors—especially those with harmful outcomes—can have tremendous physical, emotional and psychological impacts.^{9,10}

In response to the exposure of this subject, there has been increasing recognition within healthcare organisations that their workers' well-being is suffering and that there is insufficient psychological support for them.¹¹ Indeed, there is an impetus to help HCWs recover psychologically after a medical error, whether through employee assistance programmes, peer support programmes or psychological counselling.^{12–14} At the same time, there has not been any concerted effort to bring patients who were harmed together with the health professional involved to help in the healing outside of the more formal disclosure process. The patient in the story above and patient-led organisations such as Patients for Patient Safety Canada (PPFSC) believe that healing is possible if the HCW and the patient are able to meet, work together and explore the event and the feelings associated with it.¹³

There is a significant amount of anecdotal evidence that could support such a programme. For example, a recently published patient story mirrors the story in our introduction, with the patient asserting the following after meeting with the midwife responsible for the medical error causing harm:

I left that meeting with a sense of healing but also profound sadness. Sadness that we weren't able to meet much earlier and sadness that on the long journey since Joshua died, somehow humanity and compassion were sucked out of the process. (Dekker *et al*, p. 71)¹⁵

Research in this area is scant, even though this approach might greatly improve mental wellness and patient safety. There are studies reporting benefits for HCWs and patients to listen to each other's account of events and tell their own narratives about the effect of the medical error, and that hearing each other's narratives gives insight into the world of the 'other' in the aftermath of trauma.^{16,17} Indeed, interactions between patients and HCWs after medical error have the potential to meet the emotional needs of both parties.^{16,17} Transparency fosters trust, which is a key ingredient to patient safety.¹ There is also an increasing focus on a restorative approach after medical errors,^{18,19} for which one of the outcomes is healing, but this has so far not been thoroughly explored.

Our study explores the underlying social interactions and processes that occur between HCWs and patients after a medical error causing harm, where we attempt to answer the research question: How might purposeful conversations between patients and HCWs promote mutual healing and wellness after the disclosure of a medical error? The resulting framework will help us understand how, why and under what circumstances these purposeful conversations could be most valuable and effective. With this information, we are building an evidence base for how best to incorporate purposeful conversations in the healing process, which contributes to ongoing quality and safety improvement through just culture.

METHODS

We integrated a patient-oriented research approach and a constructive grounded theory methodology²⁰ (both defined below) to prioritise the input and insight of participants, and ensure the application of evidence-based methods.^{20,21} A recent paper²¹ argues that patient-oriented research and grounded theory forms a 'symbiotic relationship' that embodies evidence-based methods and respect for the perspective and experience of those who are most affected by the issue or process being studied.

Patient and public involvement

The central tenet of patient-oriented research is that it should focus on patient-identified priorities rather than those identified by researchers. In our case, our research topic arose from patients' experiences such as the one told at the beginning of this article and those experienced by PPFSC members. We had numerous dialogues and collaborations with PPFSC members over the last several years about this topic. These conversations provided context and informed this research question with a substantial understanding of the issues, concerns and insights of patients who have been harmed.

Patient-oriented research engages patients in a meaningful way as an active member of the research team to ensure their perspective and experiences are reflected in the study.⁶ For our study, three patients with the experience of emotional harm after a medical error causing

harm were engaged as partners at multiple levels on the research team, including design, recruitment and knowledge translation. These patient-partners were recruited through Canadian Patient Safety Institute (now Healthcare Excellence Canada or HEC), PFPSC and Strategy for Patient-Oriented Research networks. We also included on our team three HCW research partners who had experienced mental health issues because of a medical error.

Grounded theory methodology

Like patient-oriented research, grounded theory research puts a high priority on the input and insight of those with experience with the research topic, which guide researchers in their data analysis and conclusions, rather than confirm or validate a priori assumptions. As justified previously,²¹ grounded theory method ‘helps to allow researchers to develop a theory based exclusively on what matters to participants’. This methodology amplified the opportunity to solidly ground our study on the experience and shared stories of the patient and HCW participants, and meaningful interpretation of those experiences.

Study design

The design of our study included three phases, each one informing the subsequent phase(s):

- ▶ Phase 1: background review of the existing literature on HCW–patient communications.
- ▶ Phase 2: qualitative data collection and analysis of interviews with HCW and patients who have experienced medical error causing harm.
- ▶ Phase 3: development of a visual framework to use in knowledge translation activities.

Phase 1: background literature review

We first conducted a background literature review using four databases (Embase, MEDLINE, PsycInfo and CINAHL) restricted to the English language between 1 January 2000 and 28 April 2020. The search terms and process for inclusion are available on request.

We also conducted a grey literature review using 10 search websites/databases (Proquest, clinicaltrials.gov, CPG Infobase, Google, Trip Pro Database, guidelinecentral.com, The University of Alberta Grey Literature collection, Health on the Net Foundation, CADTH, CIHI). As part of our review, we also interviewed key stakeholders who were experts in the field of patient safety, second victim phenomenon and patient–HCW communications in individual 1 hour recorded video call or telephone conversations (n=8) in July 2020.

Phase 2: qualitative interviews

Participants were recruited using convenience sampling and were required to have some experience with harm after medical errors and with communications with patients/HCWs after the error. They were recruited through email and were located broadly across Canada using networks from the authors and partners. Most participants were female (77%). HCWs included representation from medicine (staff and trainees), nursing (RNs

and LPNs, healthcare aide and trainees) and pharmacy (pharmacists or assistants). Additional demographics were not collected to protect the privacy of the participants especially in light of the sensitivity to the subject. One-on-one interviews ranged from 30 to 75 min; all data were collected in a single interview (see online supplemental appendix A for the interview guide). Brief field notes were taken and shared with the research team to refine the interview guide as data collection progressed until data saturation was reached. No repeat interviews were carried out.

The interviews took place between September and October 2020 and were conducted and recorded over Zoom²² videoconferencing. Using the recordings and field notes, we conducted concurrent data collection and analysis including initial line-by-line coding using gerunds, focused coding, followed by theoretical coding (for a full explanation of these phases of analysis, see table 1). The sample size was increased until saturation, which was 22 participants, of which were 11 patients or family members of patients and 11 HCWs (2 additional participants chose not to participate after the interview was scheduled).

The 22 individual interviews aimed to elicit views on the potential for purposeful conversations between HCWs and patients after a medical error. The interviewer was a former nurse and qualitative researcher (AS). Neither she nor the researchers had a prior relationship to any one of the participants. The semistructured, one-on-one interviews used open-ended questions to draw stories, thoughts and conclusions about experiences of the processes of communications between HCWs and patients after a medical error, such as: why and when the conversations took place, whether there was any resolution or healing and whether they led to a positive or negative outcome.

Data analysis

We conducted concurrent data collection and analysis according to grounded theory principles (table 1). First, line-by-line coding of the data (transcribed interviews) was completed using Word and Excel immediately following each interview by a PhD level grounded theory researcher (DLA). After four interviews, focused coding was completed to sift, sort and synthesise the large amounts of data centering on the codes (words, themes) that appeared more frequently in the interviews. After interviewing most of the participants, and there were clearly significant patterns in the data, a theory began to emerge through theoretical coding. This was followed by the development of a theoretical framework, which included a visual breakdown of the communication process between patients and HCWs. Participants were not involved in the data analysis or framework building.

Phase 3: visual framework development

Using the combined results of phases one (literature review) and two (individual interviews), we developed a visual of the communication process between HCW and patients that illustrated the issues, relationships and

Table 1 Phases of analysis*

Phase	Description	Purpose	Timing
Initial coding	Line-by-line coding of each segment of data; use of gerunds as a heuristic device to describe data (and 'to nudge us out of static topics and into enacted processes')	Explore and interact with the data; begin to explain what it means; generate the 'bones' of the analysis	This coding is done as soon as possible after each interview
Focused coding	Coding with those codes that appear more frequently in the data	Sift, sort and synthesise large amounts of data; form the 'skeleton' of the analysis	After three or four interviews, patterns begin to emerge
Theoretical coding	Use theoretical sensitivity to conceptualise relationships between categories; determine the main category(ies)	Create hypotheses for the theory; begin conceptualising theoretical framework	After interviewing most of the participants and there are clearly significant patterns in the data, the theory begins to emerge
Theoretical sampling	Gather more data (further empirical data) on the main category(ies) and its(their) properties until no new properties emerge (to saturation)	Elaborate and refine categories; ensure robust categories; clarify relationships between categories; identify variations in the process	Final interviews validate and refine the theory
Theory development	Use theoretical sensitivity to raise categories to concepts; ask 'what is the data a study of?'	Develop the theoretical framework to explain the process; offer an abstract understanding of the relationships between the core concepts	'Member checking' with participants and members of the same community adds rigour to the theory

*Aubin D. Unmasking the self as a fallible health professional: a grounded theory study on the psychosocial process of mitigating the negative effects of shame due to mistakes. 2015. University of Alberta press.

outcomes associated with the interaction. The resulting framework helped us understand how, why and under what circumstances these purposeful conversations could be most valuable and effective. The framework is presented below and represented by figures 1 and 2.

RESULTS

Our data analysis resulted in 763 text sections coded into gerund codes, which were sorted into 64 categories to form the basis for creating our themes. Supportive quotations are found in table 2.

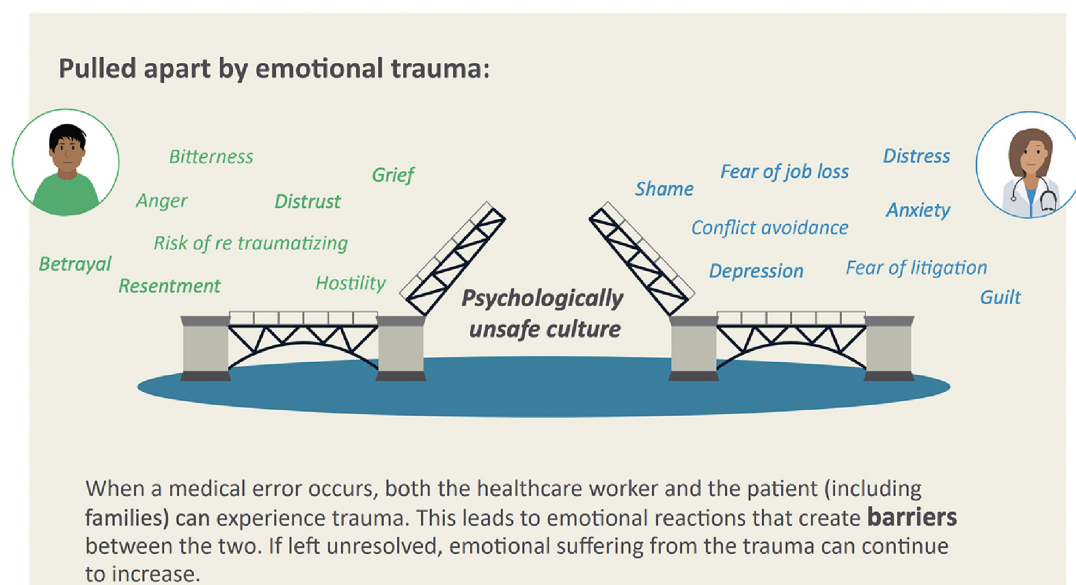


Figure 1 Emotional experiences of patients and healthcare workers after a medical error.

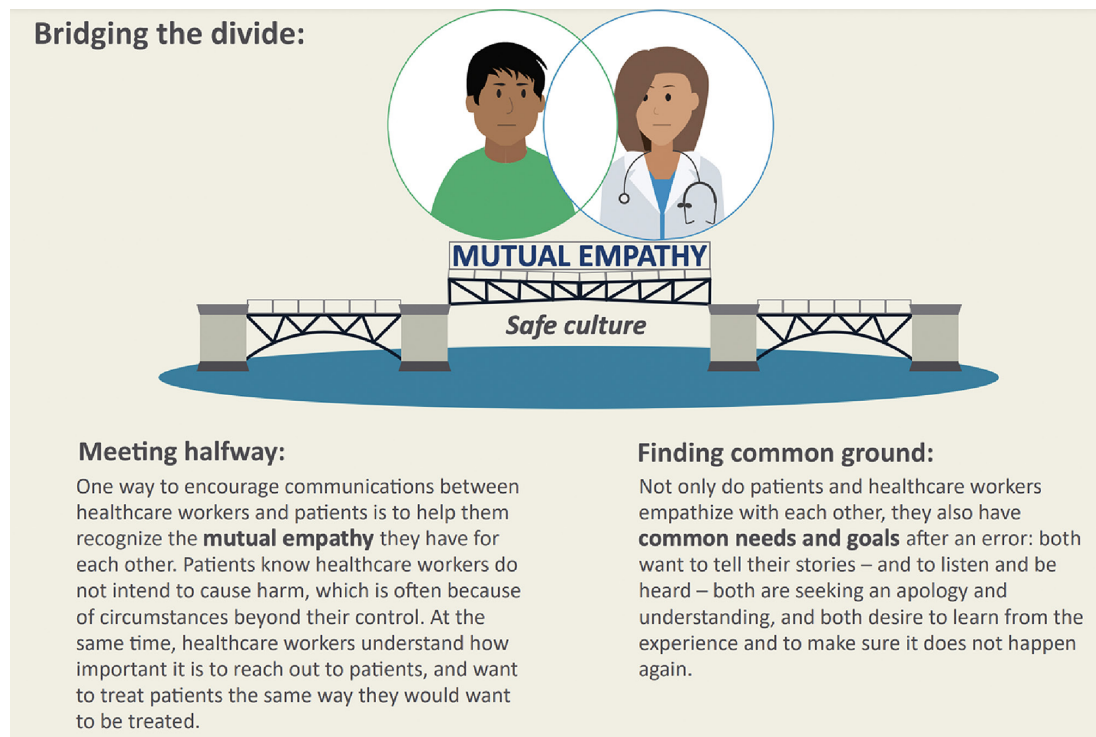


Figure 2 Effect of a mutual healing conversation.

Patients

Theme 1: empathy for HCWs

Despite the trauma patients endured, even if they often did not feel supported by the healthcare team or organisation, many felt empathy towards the HCWs who had been involved in the medical error causing harm. Patients understood that HCWs do not intend to cause harm; explaining healthcare as ‘it’s not plug and play’ (PP#1) and that many circumstances beyond the HCWs’ control might lead to unintentional errors, such as busy emergency rooms, a difficult or unusual diagnosis, or the stress of their profession. Some noted that HCWs expect to be perfect, so that coping with a mistake might be tremendously difficult.

Some patients showed a deep understanding of the emotional trauma an HCW might experience. Patients who were able to meet with the HCWs who had felt responsible for the harm were able to be empathetic towards the HCW, and better understand what they were going through. ‘(the meeting) just gave me these opportunities to be empathic towards her and understand how she must have felt and how horrifying, embarrassing and shameful this must have been for her as well’ (PP#11).

Theme 2: barriers to communications and healing

Patients discussed barriers they perceived blocked HCWs from wanting to talk to patients about a medical error, and also their own barriers. Patients were aware of the fear of lawsuits HCWs may feel, or the tendency to protect themselves from potential legal action.

Aside from legal action, many patients perceived that HCWs avoided conversations because they were avoiding

blame or admission of guilt, the discomfort of the conversation or whatever repercussions might result from their admission.

Avoidance was interpreted by some patients as a lack of empathy or respect for the patient (PP#2), disregard for the care not given (PP#2), shunning the patient (PP#9) or not caring about them (PP#3). This behaviour of avoidance often left patients feeling disrespected, isolated or dismissed. Many patients describe this behaviour as dehumanising, saying they felt like ‘garbage, broken and discarded...abandoned’ (PP#9), or ‘completely and totally distressed...overwhelmed with feelings, confusion, distress, and angry’ (PP#6).

Patients themselves also formed barriers to communications or avoided conversations with the HCWs. The participants explained that they sometimes felt deep betrayal and mistrust towards HCWs and the healthcare system, which prevented them from being open to conversations (PP#1, PP#12, PP#11).

Theme 3: communication needs

Patients had clear expectations of communications with HCWs and the healthcare organisation after medical harm. Patients wanted the HCW to be ‘...totally honest and open and available, transparent, caring’ (PP#2). This meant being included in discussions about the error, or being kept apprised of any updates about what was going on with the care, investigations or outcomes.

Patients felt that those HCWs who were most closely connected with the patient should be the ones involved in conversations about the harm. Sometimes just acknowledging the mistake was enough. It was important to the patients that

**Table 2** Phase 2 qualitative interviews: illustrative quotes

Theme	Quote
Patients	
Empathy for HCWs	The medical field is extremely complicated with all the medications and all the diagnoses, and bodies are extremely complicated units. So, to think that errors are not going to occur...that's not reality. (PP#12)
	And too many people put the doctor up on a pedestal and let the doctor direct it. And frankly, if I were a doctor, I feel that would be a lot of pressure as a human being to have on me. (PP#12)
	So it just gave me these opportunities to be empathic towards her and understand how she must have felt and how horrifying, embarrassing and shameful this must have been for her as well. (PP#11)
Barriers to communication and healing	We repeatedly asked to meet with the anaesthesiologist, but he refused, and we knew, without even confirming it, we knew he had probably spoken to his lawyers...we knew what they were doing, they were protecting themselves. (PP#3)
	As long as they didn't say the words, they could brush it under the rug and blame it on something else or, actually it wasn't even blame, it was just ignore it. (PP#5)
	Unless you have that MD PhD at the end of your name, you're just a parent, you don't know anything, and, and that's a struggle, umm, because who doesn't know their kid the best. (PP#10)
Communication needs	So having staff who were meeting with us that understood the impact of harm on patients and families certainly would have helped...as families, we need to see the people that were involved, not the, you know, the person up on high who had nothing, were totally removed from the situation. (PP#5)
	Even if you're not able to do anything, just show the support to that person by acknowledging that there is a mistake. (PP#2)
	There's nothing wrong with that, to show that you're vulnerable as well, 'I'm sorry that you are having this bad experience, I feel badly about it as well.' (PP#2)
	I think it was the nurse leader who actually said "nobody wanted this to happen...it was a nice soft landing for us. (PP#11)
What patient's need to heal	Something is going to improve so that someone else doesn't have to go through the same experience and then they would be able to move on. (PP#2)
	Although individual people make mistakes, the system allows them to make mistakes, and so I'm all about let's try to fix this, yeah, it is really shitty it happened to us but let's try to prevent another family to go through that and they had no interest in doing that, so that was really disappointing. (PP#13)
	I think there should be a patient advocate that has to be called right away...there should always be a team that deals with any kind of adverse, err, you know, error, or outcome, or even a bad experience in general that didn't, that isn't anyone's fault really...The patient advisor is educated and vetted, and the committee is educated and vetted, and there's a liaison person, so, umm, they, they know the rules, they know what to expect. (PP#2).
HCWs	
Empathy and respect for patients	It just felt like it was the good human thing to do. (HCWP#20).
	They were so nice about it (the error) and they were so understanding ... she just kept comforting me, she knew, I guess she realized that it affected me really deeply, so, she was really understanding. (HCWP#16)
Barriers to communications and healing	The barrier is essentially the, umm, overriding influence and control of the legal profession on healthcare.... It makes it virtually impossible to talk about what is learned. (HCWP#14)
	... If I have to carry their burden for the rest of my life, I think it could wreck me as being the nurse that I am... I think it would just make it way too personal to be able to carry it. (HCWP#7)
	I find it hard to meet with families about other people's errors, usually because when you get to that point it is a really emotional charged situation, so have met with people who are angry, I have met people who are devastated, and that's hard to be in the receiver end to that, I feel I'm on the receiving end in that instance. (HCWP#20)

Continued

Table 2 Continued

Theme	Quote
HCW perception of patients' communication needs	People appreciate honesty and forthrightness. If you are straightforward and honest, and they can see that you are appreciating or understanding that the mistake had some consequences for them and that you regret it. (HCWP#4)
	The most important thing is to approach the conversation with a lot of humility...the power of saying "I don't know" and providing some explanation of what you are going to do about it is a fairly powerful sort of a thing that disarms people. (HCWP#4)
	That immediate moment might not be beneficial, they might be in a state of shock and not understanding what you are saying and I guess it depends on the type of situation, case. (HCWP#16)
	If they are still in a very high upset level, it's not going to be helpful for any of the parties, so, yeah, it's probably, you have to wait at least until all the emotions settle a little bit...I am saying that after those emotions are settled, that's I guess the best time for having a conversation so you listen and the patient gets to be listened to, because otherwise I think you would be talking against a wall of emotions. (HCWP#19)
	And some people don't want to be included, that's fine if they don't want the reminder, it's almost like it's a form of PTSD, so you have to be sensitive to that possibility. (HCWP#4)
What HCWs need to heal	If you have a manager that you don't like, you don't feel comfortable around, that's going to be a big barrier for sure...So you need to have coworkers and groups that are actually open to discussing this in a non-judgemental fashion. (HCWP#21)
	I do remember everybody talked about the way they felt, and that was the major thing to realize that we all felt the same. (HCWP#7)
	I guess I kept thinking or I kept trying to remember, ok it is not my fault entirely, I know these things happen and trying to remember all those moments when people just told me it's ok, it happens to everyone, it's ok. (HCWP#16)
	We should practice those things and not just think that the nurse and the doctor in the heat of the moment are going to do well at it. (HCWP#18)
HCW, healthcare worker.	

HCWs showed them that the medical harm was of concern to them, that they 'had some skin in the game' (PP#11).

It was also important to patients that HCWs acknowledge their own feelings and concerns about the error towards the patient that it was not just about the facts. On the other hand, some patients cautioned that HCWs need to recognise that the most important emotions in the room were the patients' emotions.

Theme 4: what patients need to heal

Patients explained how the HCW and healthcare organisation could help them heal after a medical error, by learning from the error, being supportive and helping them find meaning. When one patient was told there was nothing to learn from the error, they were devastated. Similarly, other patients noted how disappointed they were that no investigation took place. Many patients mentioned how they promoted their own healing by finding meaning from the medical harm, either to prevent future medical errors, support others experiencing errors or simply shaping life experience.

'(I needed to know) something is going to improve so that someone else doesn't have to go through the same experience' (PP#2).

Some patients suggested that the healthcare organisation should provide psychological support (PP#6) to

them after medical harm, whether in the form of a patient safety advocate (PP#9) or a patient liaison (PP#5).

Healthcare workers

Theme 1: empathy and respect for patients

HCWs expressed the importance of 'understanding the impact it's had' (HCWP#4) and that patients simply wanted to be heard (HCWP#7) after a medical error. In many ways, HCWs implied that they wanted to treat patients in the same way they would want to be treated themselves—with honesty (HCWP#4) and connecting as one human being to another (HCWP#7). HCWs also understood that patients had good reason to be emotional and upset, and accepted that this was a normal reaction to the medical harm.

Some HCWs also recognised that patients understood that HCWs are human, capable of making a mistake like anyone else (HCWP#4, HCW#22, HCW#19). 'She knew, I guess she realized that it affected me really deeply, so, she was really understanding.' (HCWP#16)

Theme 2: barriers to communications and healing

HCWs were upfront when it came to admitting their own fears and barriers to communicating with patients after harm. Fears included being judged, being sued, harming their reputation and losing their job. HCWs often mentioned that direction from lawyers or legal entities

prevented them from being open with patients. Not only did HCWs state they avoided these conversations, but many demonstrated ways to justify not talking to the patients. In particular, if the HCWs feel attacked by the patient, they will avoid these conversations (HCWP#14), or they will be unwilling to be genuine and personal (HCWP#7, HCWP#21). At the very least, such conversations are unpleasant and may even be devastating to HCWs, and therefore should not be forced on them.

Other reasons why HCWs protect themselves included not wanting to draw attention to themselves (HCWP#20), or because they felt the families did not care about their feelings (HCWP#21). A number of HCWs noted that they did not need to have a conversation with the patient if they did not consider the error significant, or not their fault. HCWs also justified not talking to a patient because it would not be of value to the patient, or because it was not important.

An indirect barrier to communicating with patients was self-blame and shame about the medical harm. HCWs explained that the living with the guilt of the error made it difficult to face the consequences and exacerbate feelings of inadequacy (HCWP#22).

Theme 3: HCW perception of patients' communication needs

HCWs made numerous suggestions about how best to communicate with patients after medical harm, 'to make sure that everyone is on the same page' (HCWP#14). Similarly, sincerity and humility were seen as an important for the conversations.

One HCW noted that providing patients the opportunity to talk and be listened to was valuable to the patients (HCWP#4). Others recognised that it was important for patients to hear an apology and know that HCWs were going to learn something from the medical error.

Participants also had suggestions about the logistics of the meetings, including inviting the patient to have whoever they want with them, and having a third-party facilitator (HCWP#21, HCWP#22) or mediator (HCWP#18) present. HCWs had differing opinions as to the timing of these conversations, but agreed that it should be patient led and take place after emotions have settled.

Theme 4: what HCWs need to heal

HCWs recognised that the conversations after medical harm can be healing for HCWs, 'providing closure and confronting fear' (HCWP#17). Being involved in the processes surrounding the medical error might also help with the healing, trying to understand that event or come up with solutions. Support from leaders was also seen as valuable to HCWs, especially if it meant that the culture of the organisation was supportive.

HCWs found ways to heal themselves too, whether through their own coping skills, learning from the mistake, personal reflection or positive self-talk. Many HCWs expressed great benefit from the reciprocal support within their profession 'have each other's' back' (HCWP#16).

'I do remember everybody talked about the way they felt, and that was the major thing to realize that we all felt the same.' (HCWP#7)

HCWs suggested the need for training is crucial to prepare HCWs to process medical errors and how to properly communicate the facts and your emotional response to the patient and/or family members while these meetings take place.

Core category

The core category that holds the theory together—unrecognised reciprocal empathy—emerged from the theme of empathy. Both HCW and patient participants consistently asserted they felt empathy toward the other. However, many did not recognise that the other also had empathy towards them. This represents both a barrier and opportunity for mutual healing, which is why it is central to develop a framework to understand the social interactions between HCWs and patients.

Even though patients indicated they were traumatised by the experience, and often did not feel supported by the healthcare team or organisation, many indicated they felt empathy towards the HCWs who had caused them harm. Patients understood that HCWs do not intend to cause harm and that many circumstances beyond the HCWs control might lead to unintentional errors. They also understood that HCWs might need psychological support after medical error. At the same time, HCWs made it clear they understood how important it was to reach out to patients, often explaining they would want to treat patients the same way they would want to be treated themselves.

DISCUSSION

This study uncovered a variety of insights from both patient and HCW participants about healing after harmful medical error. Although each experience was different, there were areas of commonality among and between patients and HCWs. The perspectives we heard from HCWs were much more diverse than those of patients, perhaps because they represented many different professions, or because their experiences with medical errors were wide ranging. Still, a few shared themes emerged, which shaped our theoretical framework.

Building from the core category of unrecognised reciprocal empathy, we developed a framework to explain the social process, which will help us understand how, why and under what circumstances these purposeful conversations could be most valuable and effective.

After experiencing a medical error, patients can experience such emotions as grief, anger and resentment while HCWs are experience emotions such as deep shame, guilt and distress (figure 1). Although patients often felt a strong need to meet with the HCWs and discuss the incident, some are not prepared to face the HCW after medical error. They feel betrayed and distrustful towards the HCWs and healthcare system.

They fear that reliving and retelling the experience may retraumatise them.

HCWs, on the other hand, fear being judged, being sued, harming their reputation and losing their job. They also avoid conversations because of system issues, such as a psychologically unsafe culture in the organisation, or because legal entities advise that these conversations should not take place. If these barriers remain, it causes increased emotional suffering for both the HCW and the patient. For the patient, it means increased distrust, feelings of being disrespected or dismissed, bitterness and hostility. For the HCW, it means unresolved shame and guilt, as well as decreased self-esteem, leading to anxiety and depression.

If a mutual healing conversation was introduced early in this social process—before the increased emotional suffering—an opportunity exists to breach these barriers. This can be facilitated if the two parties recognise their reciprocal empathy, their common desired outcomes of apology and understanding and their mutual need to tell their stories and to learn from the experience (figure 2). This video (https://drive.google.com/file/d/1fgVeFE4CZm2P8wVs_dwznMu3p9xNG4UR/view?usp=sharing) summarizes our findings.

Our findings indicated that further exploration of the value of mutual healing conversations is warranted. We found strong indications that these conversations might provide an opportunity to find common ground, to gain perspective of each other's experience, and strive to recognise each other's humanity. This sharing of stories and movement towards openness can also make significant contributions to more transparency in the health system, thus contributing to a more just culture and a safer health system.

Limitations

Our study is not without limitations. Participation was voluntary, making self-selection biases present. This limited participants to those who were recovered enough, strong enough or confident enough to discuss their experience with medical errors. It was also difficult to control variables such as age, gender, profession and years of experience. Additionally, our small sample size prevents the findings from being generalisable to broader patient and HCW populations. Nonetheless, our study uniquely integrates patient-oriented research principles and grounded theory methodology. Our co-constructed theory about a social process—communications between patients and HCWs—is grounded in the experience and shared stories of the participants.

CONCLUSION

Many patients and HCWs expressed that it was important to communicate with each other after medical errors causing harm. This meeting may provide an opportunity to find common ground, to gain perspective of each other's experience and strive to recognise each other's humanity. Both parties displayed empathy, in which a mutual healing conversation may act as an opportunity

to breach barriers and foster the desired outcomes of apology, understanding and learning from the experience, ultimately improving the quality and safety of healthcare.

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