Barriers to and Facilitators of Applying Communication and Resolution Programs in Health Care

Jonathan D. Stewart | LUND UNIVERSITY



THIS PAGE INTENTIONALLY LEFT BLANK

Barriers to and Facilitators of Applying
Communication and Resolution Programs
in Health Care

Jonathan D. Stewart

Lund 2022

Under the supervision of James M. Nyce, Ph.D.

Barriers to and Facilitators of Applying Communication and Resolution Programs in Health Care

Jonathan D. Stewart

Number of pages: 71 Illustrations: 2

Keywords

patient safety, medical error, hospitals, disclosure, communication

Abstract.

This thesis investigated why U.S. hospitals that had committed to implementing communication and resolution programs (CRPs) did not consistently apply their programs when patient harm events occurred. Several themes emerged from interviews with nine risk management, patient safety, and patient experience professionals: the importance of informal social networks; workload and competing priorities among key individuals; the complexity of interactions between hospital representatives and patients or families who had experienced medical harm; challenges in determining (or negotiating) which events warrant application of the CRP; and working to overcome active and passive resistance to the process. Study findings illuminate the complexity of hospitals' responses to medical harm and suggest an agenda for further research.

© Copyright: Division of Risk Management and Societal Safety, Faculty of Engineering

Lund University, Lund 2022

Avdelningen för Riskhantering och samhällssäkerhet, Lunds tekniska högskola, Lunds universitet, Lund 2022.

Riskhantering och samhällssäkerhet
Lunds tekniska högskola
Lunds universitet
Box 118
221 00 Lund

http://www.risk.lth.se

Telefon: 046 - 222 73 60

Division of Risk Management and Societal
Safety
Faculty of Engineering
Lund University
P.O. Box 118
SE-221 00 Lund
Sweden

http://www.risk.lth.se

Acknowledgements

The casual reader of a master's thesis can scarcely imagine how many people's direct and indirect support goes into making the finished product possible. I first wish to thank those who generously agreed to be interviewed for this study, and who candidly shared their successes and frustrations in hopes of advancing the CRP movement. I am grateful to Jim Nyce, who helped me bring my research interests into focus and whose thoughtful review and feedback kept me on track; to Anthony Smoker, who managed to provide an engaging and high-quality educational experience despite having to trade the Bishop's Arms for teleconferencing; and to Johan Bergström for carrying the torch for this unique and much-needed degree program.

I cannot thank Heather Gocke enough for her steadfast support of my professional and personal growth as well as her leadership, patience, and wise guidance. I appreciate Tim McDonald and my other colleagues whose innovative ideas and tireless work in service to the ideals of CRP inspire me, and whose feedback helps keep me humble.

Finally, I am grateful to my mother for inspiring me to a rewarding career in health care, and to my father, who died of a health care-acquired infection during my studies and who instilled in me an abiding interest in risk and safety. Above all, I am thankful to my wife and children, who share my vision of a safer, more respectful world and who gifted me with the time to pursue these studies.

Abbreviations and Symbols

AHRQ U.S. Agency for Healthcare Research and Quality

CANDOR Communication AND Optimal Resolution

CRP Communication and Resolution Program

CMO Chief Medical Officer

RCA Root Cause Analysis

RM/PS/PX Risk Management / Patient Safety / Patient Experience professionals

Contents

Acknowledgements	5
Abbreviations and Symbols	6
Introduction	9
Background and Literature Review	10
Medical Harm	10
Safety Science and the Post-Harm Period	11
Communication and Resolution Programs (CRPs)	11
Previous Research	13
One Malpractice Insurer's Program to Promote CRP	16
Theoretical Foundations	17
Social Networks and Social Capital	17
Power	19
A Model of Complex Sociotechnical Health Care Systems: SEIPS	20
Methods	22
Epistemology and Study Design	22
Study Participants	22
Ethics	23
Interviews	23
Results	24
Theme 1: The Centrality of Risk Managers, Patient Safety, and Patient Experience (RM/PS, Professionals and the Roles of Informal Social Networks	,
Informal Social Networks	24
Workarounds	26
Theme 2: Workload and Competing Priorities	
Theme 3: Complex Interactions Between Hospital Representatives and Patients/Families	
Patient and Family Factors	29
Patient Liaison Factors	32
Theme 4: Which Events Are Appropriate for CRP?	35
Theme 5: Inertia and Resistance	
Front-Line Staff and Clinical Managers	37

Medical Staff	39
Organizational Leadership	44
Competing Organizational Priorities	45
Discussion	47
Complexity	47
Physician Resistance	48
Social Networks and Social Capital	50
Power and CRPs	51
When and For Whom to Apply CRPs?	52
Incrementalism	52
Secrecy	55
Limitations	57
Conclusion	59
References	61
Appendix 1: Interview Questions	70
Appendix 2: SEIPS 2.0 Configural Work System Diagram Example	71

Introduction

The traditional 'deny and defend' response of health care organizations and physicians to medical injuries compounds the harm experienced by injured patients and families. Over the past several years, numerous U.S. hospitals and health systems have begun to adopt Communication and Resolution Programs (CRPs), which are intended to be comprehensive, systematic, and principled approaches to patients and families after medical harm (Gallagher et al., 2020). These programs feature a commitment to serious internal investigation and organizational learning; transparent and sustained communication with the affected patient or family about the harm event and its causes; and a fair, proactive offer of restitution without requiring resort to litigation (Boothman, 2016; Mello et al., 2016). Recognizing that clinicians may also be traumatized by their involvement in patient harm events, some organizations' CRPs incorporate a 'care for the caregiver' or 'second victim support' component as well (McDonald et al., 2018).

Some commentators have noted that the spread of ideas for improvement within the health care industry is often hampered by mechanistic implementation, insensitive to the complexity of organizational realities (Rowley & Waring, 2011; Wears & Hunte, 2014; Wears & Sutcliffe, 2020). Although well over 200 U.S. hospitals and health systems have begun implementing CRPs, hospitals are applying their CRPs to some events and not others or are applying only parts of their CRP and stopping short of full transparency or proactive offers of compensation (Gallagher et al., 2020; Mello et al., 2014b; Mello et al., 2020). The aim of this study is to understand why hospitals apply their CRPs partially or selectively.

Background and Literature Review

Medical Harm

Medical injuries – those caused by a patient's interactions with the health care system rather than by their underlying malady – are common. James' (2013) analysis estimated that medical injuries (including health care-acquired infections) kill between 210,000 and 440,000 Americans per year and seriously injure 10-20 times more. This made medical injuries the third leading cause of death in the U.S. prior to the COVID-19 pandemic (Chung, 2021; Makaray & Daniel, 2016). The Department of Health and Human Services (2010) estimated that during a one-month study period, 13.5% of hospitalized Medicare beneficiaries (134,000 patients) experienced at least one adverse event during their hospital stay, with 1.5% (15,000 patients) experiencing an event that contributed to their death.

The harm suffered by patients and families is not limited to physical injury; emotional and psychological harm may have long-term consequences, including effects on future interactions with the health system lasting for years (Prentice et al., 2020; Vincent & Amalberti, 2016). A patients' physical injury is compounded when health systems and physicians refuse to apologize for or even acknowledge having injured them, and by forcing injured patients or their surviving family members into adversarial legal proceedings in the pursuit of compensation or merely information about how the injury occurred (Berlinger, 2005; Makary, 2013; McKnight & Bennington, 2010; Wachter & Shojania, 2004). The 'wall of silence' between injured patients and families and the organizations and physicians who caused their injury has traditionally been attributed to a code of silence among physicians in conjunction with their institutions, along with pressure from malpractice liability insurers and their attorneys not to compromise any potential legal defenses through admissions of negligence (Gibson & Singh, 2003; Studdert & Mello, 2019).

Safety Science and the Post-Harm Period

While safety science is traditionally associated with the prevention of accidents, the field of public health has expanded and divided the concept of prevention into primary (focused on protecting healthy individuals from injury), secondary (making injuries more survivable), and tertiary (promoting recovery from injuries) (Kisling & Das, 2020). This three-pronged approach to injury prevention was first articulated by Haddon (1972, 1980) in the context of traffic safety. By adding a temporal element, Haddon broadened the focus from merely preventing crashes to improving crash survival through the vehicle redesign (e.g., seat belts, tempered glass) and decreasing death and disability in the post-crash phase with ambulances staffed by trained paramedics, regional trauma centers, and rehabilitation programs (Hemenway, 2009).

Much like public administrators in the mid-20th century fixated on preventing drivers from crashing their automobiles and neglected, more or less, post-crash opportunities to reduce morbidity and mortality, the health care industry continues to focus primarily on eliminating medical error and other sources of patient injury. Medical harm will continue to occur for the foreseeable future, and it is appropriate to expand safety efforts to minimize the harmful impact of medical injuries and to support recovery from physical, emotional, and economic injuries. The focus of this study is the mitigation of harm and the promotion of emotional and economic recovery after medical injuries through communication and resolution programs.

Communication and Resolution Programs (CRPs)

Kraman & Hamm (1999) are generally credited with starting the discourse about what was to become Communication and Resolution Programs, or CRPs (McDonald et al., 2018). They described a program of proactive full disclosure, apology, and fair offers of compensation to patients

who suffered medical injuries at their Veterans Health Administration hospital in Lexington,
Kentucky in the late 1980s. Contrary to what many expected, the hospital did not experience a surge
in malpractice litigation but rather saw a decrease in legal defense costs. The idea spread to a few
academic medical centers within the region, particularly the University of Michigan Health System in
2001, the University of Illinois Chicago Medical Center in 2006, and Stanford University Medical
Indemnity in 2007. These organizations began presenting and publishing about their successes as
self-insured academic medical centers.

These policy experiments within various health systems generated occasional commentary in the medical, legal, and management literatures beginning in the 1990s and was the subject of a program of serious academic research by a handful of scholars. In 2010 the U.S. Agency for Healthcare Research and Quality (AHRQ) provided research grants to three academic medical centers and to the New York Department of Public Health to develop or expand their disclosure and apology programs; the results were published in 2016 as the CANDOR (Communication AND Optimal Resolution) toolkit.

The 'disclosure, apology and offer programs' were re-branded 'Communication and Resolution Programs' in the late 2010s. There was general agreement on the core elements: a commitment to be 'transparent' with patients and families about outcomes of care and to inform them if they have received 'inappropriate' care; apology (when appropriate); timely and thorough investigation and analysis to inform communications with the affected patient or family; and a commitment to proactively offering financial and/or nonfinancial compensation to the affected patient or family when the care they received was below acceptable standards (i.e. medical malpractice) and that inappropriate care caused their harm (Pillen et al., 2016). This launched a wave of new activity as many more health systems began pursuing CRP implementation, drawing the attention of practitioners, academics and even policy-makers. Predictions by Studdert et al. (2007)

that the trend toward honesty with patients and families about medical injuries would result in ballooning malpractice litigation proved to be mistaken; early adopters of CRPs found that open and honest communication with patients after medical harm did not lead to more malpractice lawsuits or higher indemnity payouts (Boothman & Hoyler, 2013; Boothman et al., 2016; Kachalia et al., 2010; Kachalia et al., 2018; and McDonald et al., 2010).

It should be noted that the Communication and Resolution Program nomenclature is not uncontroversial. Moore, Bismark & Mello (2017) suggest that *reconciliation* may be preferable to *resolution*, while others prefer the language of *restorative* approaches (Kooijman & Oelke, 2021). Wojcieszak (2020) believes *disclosure & apology* remains the better terminology (D. Wojcieszak, personal communication, June 17, 2021).

Previous Research

The AHRQ Demonstration Grants Final Evaluation Report, released the month after the publication of the CANDOR Toolkit, forecasted some of the difficulties hospitals would have in implementing CRPs. Of the three health systems that attempted CRP implementation during the three-year grant period, none was fully successful. The University of Washington "was unable to implement the communication and resolution program across the five facilities within the 3-year grant period. Some sites did begin implementation, but risk and claims managers tended to use the communication and resolution program selectively and did not track cases as directed" (Pillen et al., 2016). The five participating New York City hospitals "implemented the disclosure part of the model with some success but experienced greater difficulty in implementing the apology and compensation component. ... An apology acknowledging responsibility was given in only 13 percent of cases" (Pillen et al., 2016). The most successful program – a prototype CRP at the University of Illinois Chicago (UIC) Medical Center called "Seven Pillars" – began its program several years

before the AHRQ demonstration project but was unable to successfully spread it to community hospitals during the three-year grant period:

The grantee provided no data on the impact of Seven Pillars at the 10 replication hospitals. Training and technical assistance were provided to each of the community hospitals.... Although the community hospital staff valued the training and technical assistance, the risk management staff were already busy prior to the implementation of Seven Pillars and took on additional burdens related to the intervention without the support of grant funding.

As mentioned above, the outstanding research question that this demonstration intended to answer is whether the existing disclosure and resolution model is a good "fit" for community hospitals, and if not, what alterations might need to be made to make it a good fit. While the demonstration was successful in accumulating more evidence for the model in self-insured academic settings, the inability to replicate the results of Seven Pillars in the community hospitals leaves that important question unanswered. We know from the experience of the UIC project that it is possible to package the training and tools and to implement them in community hospital settings; however, without outcome findings on the intervention, we do not yet know whether Seven Pillars will work outside of the settings in which it was developed. ...

This is not the only project that attempted to work with hospitals to implement disclosure and resolution programs and struggled to implement program components and data collection efforts without new staff (or dedicated staff time). The assumption that hospitals can establish these labor-intensive programs within existing resources may be flawed (Pillen et al., 2016, p. 15).

Grant recipients also published lessons learned; through interviews with participants and stakeholders, researchers identified several barriers to and facilitators of successful construction of communication and resolution programs or their application to events. These are summarized in **Table 1**.

Recent research has focused on how to encourage "greater adherence to core CRP practices," since when low-fidelity CRP programs fail to achieve desired outcomes "it is difficult to know whether the fault lies in conceptual shortcomings or incomplete implementation" (Gallagher et al., 2018, p. 1846). The barriers to "adherence to core CRP practices" is the subject of this study.

Table 1. Previously identified barriers to and facilitators of the success of CRP implementation with health care organizations

Barriers	Facilitators
 Lack of visible engagement and support of boards of directors, executives, medical staff, risk managers, and malpractice insurance carriers Outsourcing organizational response to patient harm to malpractice insurers, risk managers, and attorneys Risk managers' limited resources and heavy workload increased by CRP Failure of leaders to appreciate the novel and comprehensive nature of CRPs Active or passive opposition by one or more executives Competing organizational priorities (e.g., major remodel or construction project, new electronic health record implementation) Mistrust or a punitive culture that chills internal communication Turnover in leadership or other key roles Difficulty accessing members of the medical staff to provide education about the program Individual physicians' discomfort with disclosure and concerns about increased liability, particularly when coupled with consent-to-settle provisions in their insurance contracts Attorneys' interest in maintaining the status quo Requirements to report individual physicians to state medical boards and to the National Practitioner Data Bank Poor communication between risk managers and insurance claims professionals Challenges in conducting rapid and thorough event investigations Untimely incident reporting Poor coordination among insurers Inability to manage patients' expectations and perceptions 	 Having an inspirational champion within the organization Support from top leaders and risk managers Heavy investment in physician engagement Project management support Devoting additional resources to the program Use of formal decision protocols and communication structures Promoting incident reporting Educating clinicians about the CRP Small hospital size Alignment of financial incentives with the organization's malpractice insurer Being part of a group of organizations implementing CRP together Favorable legal liability environment

(Bell et al., 2012; Gallagher et al., 2020; Mello et al., 2014a; Mello et al., 2014b; Mello et al., 2016; Mello et al., 2020; McDonald et al., 2018; Sands et al., 2018)

One Malpractice Insurer's Program to Promote CRP

In 2016, a large medical professional liability insurer (at which the author of this study is employed) publicly endorsed the CRP approach and began to encourage the hospitals, medical groups, and health systems it insures to create their own communication and resolution programs. In a program that has been previously described by McDonald et al. (2018), the insurer provides organizations that have opted to participate access to educational workshops, handbooks, document templates, gap analyses, onsite training, and other forms of technical assistance, and – importantly – a financial incentive to develop a working CRP.

The CRP-building program is divided into five inter-related content modules ("domains"): culture of safety; rapid adverse event response and analysis; open and honest communication; care for the caregiver (known elsewhere as 'second victim' support); and early resolution. The insurer establishes measures of success for each domain; these include selected structures (e.g., the creation of prescribed policies and procedures), processes (e.g., culture of safety surveys, timeliness of internal adverse event reporting), and outcomes (e.g., responding to specific events in accordance with CRP principles). Organizations may request to be validated by the insurer in one or more domains; if the insurer deems the validation criteria for a given domain to have been met in a given year, the insurer awards the organization a 2% credit toward their next year's insurance premium. With the five available domains, organizations may earn a credit worth up to 10% of their premium.

The insurer's approach to financially incentivizing the creation of CRPs is unique and relatively new, so its effects upon how organizations plan and build their programs are still unclear. As of this writing, none of the 44 facilities participating in the CRP-building program consistently activated their CRP or reliably follow the process through to resolution when medical harm occurs at their facilities. The purpose of this study is to try to learn *why*.

Theoretical Foundations

The patient safety and health care improvement literature has been critiqued by social scientists as being well-meaning but hampered by its largely uncritical 'technicist' and 'reductionist' perspectives (Cribb, 2017; Jones et al., 2019; Wears & Hunte, 2014). Research "underpinned by a 'measure-and-manage' approach" typical of the safety and health care process improvement communities can "gloss over the complexities of health care organization life and delivery, including the socio-cultural fabric of organization and occupational life" (Rowley & Waring, 2011, p. 3). To probe that complexity, this study is informed by concepts drawn from sociology and from industrial engineering: social network theory, Lukes' theory of three-dimensional power, and the SEIPS framework.

Social Networks and Social Capital

Social network analysis has been used in various industries, including health care, to describe and even redesign work teams (Bishop & Waring, 2011; Braithwaite et al., 2009; Meltzer et al., 2010). As described by Cross & Prusak (2002), members of informal ("social") networks fall into four categories: central connectors (the "go-to" people at the center of the network), information brokers (who connect subnetworks), boundary-spanners (who develop connections with external networks), and peripheral specialists (experts available to provide vital information when needed). These roles do not appear on any organization chart or company website, but they are essential to getting work done. **Figure 1** depicts a generic social network map that might be created after observing operations and interviewing individuals within an organization.

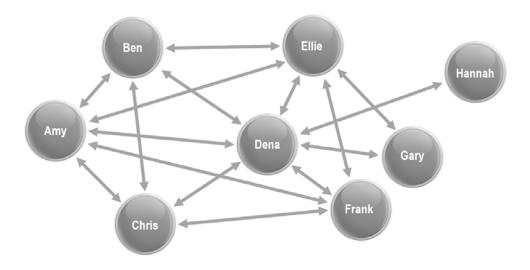


Figure 1: A social network map (sociogram)

A closely related concept is what Bourdieu (1985) calls social capital, which is "the aggregate of the actual or potential resources which are linked to ... membership in a group. ... The volume of the social capital possessed by a given [person] depends on the size of the network of connections he [sic] can effectively mobilize and on the volume of the capital (economic, cultural or symbolic) possessed in his [sic] own right by each of those to whom he [sic] is connected" (p. 21). A concept analysis by Hsieh (2008) found the attributes of social capital within the context of health care to be trust, networks, and reciprocity. Trust involves "willingness to take risks in a social context based on a sense of confidence that others will respond as expected" and will act in supportive (or at least not malicious) ways (Onyx & Bullen, 2000). Networks consist of the relationships between individuals providing access to resources and norms of reciprocity dictate that individuals should help and not harm those who have helped them (Hsieh, 2008).

Power

Power dynamics are acutely apparent in physician-patient relationships where, as Grimen (2009) notes, "power, trust, and risk are connected, and these concepts are not socially, morally, or politically innocent" (p. 17). Power, as conceptualized by Lukes (2005), identifies "an ability or capacity, which may or may not be exercised" (p. 109) and it operates in three dimensions. The first is the most visible and involves observable behavior and decision-making in response to overt conflicts of interest (Lukes, 2005; Antonsen, 2009). Examples include a patient's efforts to get their physician to prescribe a course of treatment the physician does not want to prescribe, or medical malpractice litigation following a patient injury.

The second domain is more covert: it is the ability to set the agenda, to exclude others from decision-making processes – who gets a seat at the table when the interests of those who are absent can safely be ignored (Antonsen, 2009; Hindess, 1996). This dimension "concerns what is up for grabs in an interaction and what is not, and who decides" (Grimen, 2009, p. 27). Power in this second dimension is perceptible when, for example, a physician chooses not to disclose an error to a patient (thereby foreclosing the possibility of discussion) or when a judge dismisses a malpractice lawsuit on summary judgement because the statute of limitations has passed (foreclosing the possibility of discovering evidence, 'getting one's day in court,' and legal compensation).

Power operates in a third, and largely invisible, dimension as well. It is the shaping of people's thoughts, desires, and imaginations without their being aware of it (Hindess, 1996). Lukes' third dimension of power is described by Antonsen (2009) as being what "enables the dominant to influence the dominated to adopt the goals, values and attitudes of the dominant" (p. 186). It commonly proceeds from taken-for-granted societal features that, created from the perspective of the dominant, appear natural or invisible to the dominated (Lukes, 2005). It may appear natural to most contemporary Americans that personal health insurance should be provided by one's

employer, that all pregnancies and childbirths should be medicalized, and that disputes should be resolved within the legal system or by quasi-legal alternative dispute resolution. Those who challenge the assumptions (e.g., advocates for universal public health care, doulas, and proponents of Indigenous peacemaking processes and restorative justice approaches) are, at best, shunted to the fringes of public discourse. This is not to say that the interests of the architects and beneficiaries of the status quo (large organizations, the medical profession, and the legal profession, respectively) are necessarily contrary to the interests of the dominated, for Lukes (2005) recognizes that "power over others can be productive, transformative, authoritative and compatible with dignity" (p. 109). It is to say that the active or passive operation of power in its third dimension forms and limits what people believe is normal or even think possible.

A Model of Complex Sociotechnical Health Care Systems: SEIPS

The Systems Engineering Initiative for Patient Safety (SEIPS) model (Carayon et al., 2006; Carayon et al., 2020; Holden et al., 2013; Holden & Carayon, 2021) is a useful framework for considering how the work of CRPs is accomplished or not. Recognizing that "the performance of a process is the emergent property of the whole interacting system, not of its separate parts" (Holden et al., 2013), the SEIPS model can accommodate the complex interactions between system components (people, their tasks, the tools they employ, the environment in which they work, and their socio-organizational context); the role of the external environment; the different work done by professionals, patients, and through collaboration between patients and professionals; the way in which patients, professionals, and organizations can experience different outcomes from the same processes; the role of feedback loops; and patients' journeys over time (Carayon et al., 2020; Holden et al., 2013). The SEIPS framework is also useful for categorizing barriers to and facilitators of

desired outcomes, as was done by Holden et al. (2015) in their study of barriers to self-care among heart failure patients.

Methods

Epistemology and Study Design

A qualitative content analysis approach, in the form of semi-structured interviews, was selected for this study, to allow participants to describe in detail their experiences, understandings, and opinions of social phenomena within the context of complex organizations. Such an approach permits a reflexive process to reveal relationships within data and, ultimately, informative patterns (Erlingsson & Brysiewicz, 2017). Transcribed interviews were chosen as the study data.

Study Participants

A convenience sample of fourteen (14) individuals, selected for their involvement with CRP and their accessibility to the researcher, were invited to participate in the study; nine (9) accepted. Of the participants, seven (7) were, or recently had been, accountable for their facility's Risk Management or Patient Safety functions, or both, and two (2) were in Patient Advocate roles (Patient Relations, Patient Experience). Six (6) had clinical backgrounds as registered nurses and one (1) was a physician. All were women. Seven (7) were recruited because they were instrumental in the development or operations of their organization's CRP program and two (2) were recruited because they served as volunteer members of insurer's CRP case review panel and were affiliated with organizations with CRPs.

The organizations represented by study participants were a mixture of large academic medical centers (four participants), a suburban health system (one participant), and rural hospitals (three participants). All of the health systems with which participants were affiliated were either publicly owned or organized as not-for-profit corporations; none were religiously affiliated. All but

one organization represented by study participants was insured for professional liability through the firm employing the researcher.

Ethics

Informed consent to participate was obtained from each participant. This study did not involve human subjects research requiring institutional review board approval.

Interviews

Nine (9) semi-structured interviews were conducted; six (6) via video call using Zoom (San Jose, California, USA) and three (3) by telephone using RingCentral (Belmont, California, USA). Each interview was approximately one hour in length (mean 53 min., range 47-59 min.). Contemporaneous handwritten notes were made, and each interview was digitally recorded, transcribed, and coded by the researcher. Interview questions are included **Appendix 1**.

Results and Analysis

Theme 1: The Centrality of Risk Managers, Patient Safety, and Patient Experience (RM/PS/PX) Professionals and the Roles of Informal Social Networks

All of the RM/PS/PX professionals who participated in the study spoke of their personal moral commitment to CRP and their commitment to see it succeed within their organizations.

There are many [organizations] that just push it under the rug and [say] "Let's not tell them that information" and ... "We're just going to say that we are sorry that this happened and we'll look into it and you get a letter." This is how it used to happen: you just get a letter that the standard of care was met, you know? That's how we used to do things [before] I really started to share the importance and value of being open and transparent with our patients and family members and the impact of that. (P3)

We've got somebody here who's like, "Well, the [insurance premium credit] that you get, is it worth the time that you put in?" It's not about the money. It's not about the money! It's about best practice, structure, it's about a response when there's harm. And so I really try to sound back because I'm passionate about it. (P4)

We invite people in so that we can take care of them. We spend a lot of money and effort to do that right? Come to our hospital, we're the best. Until something goes a little sideways. ... We continue to have a responsibility to care for them no matter what. (P8)

Several participants also described feeling personally responsible for ensuring the success of their organization's communication and resolution program.

I think that all the leaders get the concepts. I think there are some that are braver, stronger in the concepts, able to ... do disclosures. ... But yes, I think it's accurate to say that all themost of the bulk of the work has to happen in Risk, otherwise it does not occur. (P9)

Informal Social Networks

Although participants sometimes spoke initially in general terms of "culture," when interviews turned to the particulars, participants described the critical importance of working relationships with other key individuals within their organization in operationalizing their CRPs in

particular situations. The interpersonal dynamics participants described might be more accurately called *social networks* within their organizations. RM/PS/PX professionals with robust social networks were better able to accomplish their goals, especially in the face of organizational inertia and sometimes active resistance.

I feel like we have good people that would seek us out if something would happen. Like, *good connections* – staff members as well as physicians who would be able to identify these issues [patient harm events] and come to us (emphasis added). (P5)

A lot of the senior leaders and physicians also have direct communication with [the Patient Experience professional]. When they have a problem they call her directly, even when there's a harm event sometimes they call her before they even talk to the patient to disclose the event, just to make sure that they have a clear understanding of what- how they should express the situation (emphasis added). (P1)

I think that they [physicians] have seen ... how helpful it is to have a Risk or Patient Experience or other member alongside them. They see now that it's offering support in taking some of the onus off of the physician who was involved ... because they now see [us] as a resource. ... [S]eeing that the family reacts well, or that a lawsuit *didn't* take place. (P6)

Finding RM/PS/PX professionals to be helpful resources in these situations did not necessarily mean that physicians viewed them as full partners, however, or that they would follow the RM/PS/PX professionals' lead in managing the response to patient harm events. Participants acknowledged complex and sometimes antagonistic relationships between RM/PS/PX and medical staff.

I think I have the strongest relationship with the physicians – and the most adversarial. Which sounds completely crazy, probably, but it's the truth. I think they know that I'll help them, that I will stick by them. Because many of them have needed me to be there for them. But it's ... also, like, just by the nature of the role almost a little adversarial as well. (P9)

They [the medical staff] don't like you to come in, change things, tell them, sort of, "this is the way we're going to do it now" or hold them accountable. They don't want to hear that. (P1)

Participants also described what Coleman (1988) refers to as spending *social capital* to get specific individuals in their network to take action. For example, one participant explained that at her organization CRP buy-in among leaders "depends on the person that's selling it" (P3). This view was echoed by another participant:

I think a lot of these programs, the ones that succeed – and succeed being a relative term – are very personality-driven. They're very much led by an evangelist. (P8)

Participants reported being judicious in spending what for them was limited social capital to push for CRP to be used in particular cases, especially given the perceived prevalence of burnout among key individuals.

[The COVID pandemic has] had an interesting effect on [efforts] to get the leaders there and present with us. Not that they don't take it seriously, it's just the incredible amount of stress that's going on in general, and they're all burnt out. And they're all done with all of this. So, trying to convince someone to go to a patient disclosure of a really serious event that occurred after they've, you know, told their staff member they might get fired if they don't get vaccinated— it's just like, they've had enough. And *knowing when to push and not push* has been something we've been trying to— I know I don't want to add to their feelings of being burned out (emphasis added). (P5)

Workarounds

These social networks enabled RM/PS/PX professionals to work around barriers to achieve their objectives. One participant described a colleague activating her network (through a Grievance Committee) after a medical staff network (Peer Review Committee) refused to address a medical injury.

We just had [a missed diagnosis case] recently. ... In a peer review ... we're told ... [it] met standard care ... "No, we're not going to settle" or "we're not going to do a service recovery." ... Now, this particular patient didn't want to let it go, and [a Patient Advocate] didn't want to let it go. And so she took it to Grievance Committee and had the [medical director of the involved department], who she invited to review the case and speak to it. [On] our grievance committee is our hospital lawyer, our risk manager, our head of revenue cycle, [the director of] quality and regulations, and then the patient advocate who

summarizes the case speaks to it. And ... the dialogue turned to, "well, you know, we actually do see some opportunities for improvement in this." ... [E]ven though it had been reviewed and said "standard of care met" in those siloed ways we do it ... we ended up [waiving hospital charges]. So, completely different outcome when you take it to a room of people as opposed to doing a peer review, which is, you know, kind of in a silo. (P2)

Participants described going to medical staff leaders to obtain opinions on whether the standard of care was met in cases when legal causation was unclear and formal medical staff structures were unable or unwilling to provide an opinion.

If I am looking at whether the care was appropriate and met the standard of care to answer a grievance letter, and then there's the peer review of what happens with that individual provider, right? So when we go to the department chairman, even if it hasn't gone to peer review yet I try to determine ... with the chairman ... "What happened here? Was the care appropriate? Was it not appropriate?" and investigate the whole circumstance of the patient safety incident separate from the fact that it's then going to ... peer review and then what they do over there with the provider. (P9)

Another participant described recruiting physicians who were not involved in an injured patient's care to speak with the patient/family when the involved physician refused to do so.

There are definitely times where we need a doctor or a chair to sign off on, you know, writing off a certain expense or some elements of trying to make things right with the patient. In which case it can be a push to get their literal physical signoff on things. It can be just extra conversations and explanations and showing research, etcetera. Other times, yeah, other times it's just they may not be comfortable with the process of having that conversation with the patient. So they haven't contributed to the conversation, been a part of it We've had some really wonderful other physicians who have bought into the process and are able to step in and help with some of the communications because sometimes, you know, a risk perspective or even a nursing perspective aren't sufficient to answer all the questions and explain the case, so we definitely have great physician partners who will step in in those cases. (P6)

Theme 2: Workload and Competing Priorities

While having a single RM/PS/PX professional who felt responsible for activating a CRP seemed to make success more likely, it also represented a potential point of failure when that individual's workload exceeded their capacity.

For me, it's competing priorities ... I have to do so many things as the only risk manager, and so, you know, I keep looking at the event response domain and go "OK, yeah, this is great and I'm going to do it and I'm passionate about it," but for me it's prioritizing. So certain things have certain deadlines ... so sometimes things that you want to do may drop to the back burner. (P4)

I can even think about the last two that I've done ... it was, "Oh my goodness! Three weeks have gone by, and I have not called her back again. Let me call her." ... I oversee the complaint and grievance committee. Probably because of that, so I might get one letter and I'm taking it to grievance. I'm doing the Patient Safety, I'm doing the Risk, I'm making sure it gets to peer review. I am doing the service recovery all in one. (P9)

This is consistent with the observations of Cross & Prusak (2002), who noted that overburdened central connectors within informal networks can inadvertently create bottlenecks. Participants described having insufficient time, information, and skilled personnel to respond to every patient harm event. This required them to triage events, choosing which cases to proactively work-up and pursue to resolution and those for which they would take a "wait-and-see" approach (not engaging with the affected patient or family unless they initiated contact through a complaint, grievance, or request for information). Most participants described having to decide on which events to expend their limited time, effort, and social capital.

As Patient Safety ... it just it becomes so overwhelming because the events keep coming, but you might have done already like 100 or 200 ... corrective actions. But, I mean, how much practically can you manage? So I think that ... sort of wears you down after a while. (P1)

I think that there is definitely ... outcome bias but I think it's based on time constraints. I don't think that it's that we don't realize they're [CRP] events. It's that, which ones do we really have to focus on? ... I have to pick and choose to what level am I going to respond for every event. (P9)

I just think you have to decide which cases are worth spending that kind of time taking to committees. (P2)

Some participants explained that a successful CRP response requires trained individuals to be available to respond around the clock, yet their organizations could not provide that.

We had an event ... and the anesthesiologist who was involved said we [Risk Management/Patient Safety] ... should have had someone here right away. And we don't have that structure yet ... what does it look like? Do you call the administrator on call? Our administrators are anywhere from our CEO to our CMO [Chief Medical Officer], which would be great, but we also have our CFO [Chief Financial Officer] and our Chief Information Officer. And being only one of me, you know, I can't be on call 24/7. And so I think that's where we've kind of run into a roadblock. . . . I think that we need to get a structure in place for people to call me – but then it can't be *just* me, you know? We have to have a team. (P4)

You definitely need ... all the people in those key roles. ... [L]ooking to me ... to go to events 24/7, that wasn't something I signed on for. (P2)

If people have other jobs, you're now relying upon people who have urgent, immediate needs in their everyday jobs be able to drop those other urgent immediate needs and go to *this* urgent immediate need. (P6)

Theme 3: Complex Interactions Between Hospital Representatives and

Patients/Families

Patient and Family Factors

Participants described the attitude and behavior of patients and families who had experienced harm as being the 'wild card' in CRPs.

One of the things I always come back to is, the variable that we control the least is the patient or the family member and their perspective on things. And so I do think that sometimes we miss the mark when we're training on things, of having this full spectrum of how patients and families may react. And not just ... an initial conversation. ... Sometimes you get the patient that, no matter what evidence you show them, refuses to believe that it wasn't an error. You know, when you do admit that there was a piece of error in it, they just have unrealistic expectations.... To me that just feels like the hardest element to account for. (P6)

Some patients and families were viewed as being too "difficult" to deal with.

Another thing that is a real life barrier is ... you can find yourself dealing with very difficult patients and families where you are *never* going to get anywhere with them. And if you've done this job for a little bit of time, you can spot them 100 miles away, right? Then there's some discernment ... "Am I going to investigate and go to the mat for this person and not

for that one?" And I'm guilty as anybody. Like, I know there are some families that I would—I will fight tooth and nail for them, and I have. And will continue to. And then there's others where, in my mind, I've decided they're difficult. And they don't listen. And they're *entitled*. I mean, I can give you any name for them, but I don't want to deal with them. Because I accomplish nothing. I cannot communicate. I will never tell them what they want to hear. And so why not stop that sooner rather than later? (P8)

Strong emotions such as anger were explicitly identified as an obstacle to CRP follow-through by the hospital.

I think [anger] is totally another barrier ... I think when someone is angry, it's hard to not take it personal and not absorb the anger. And especially when people resort to name-calling or ... things of that nature, it's difficult. And for me I always try to own the event, like, 'This is my responsibility. I'm the Patient Safety Officer, I'm the Risk Director. It happened on the premises. I own it.' But I think it's easier for me to do that because I wasn't at the bedside providing the care. I see it being very a huge struggle to the clinician when they're being talked to in that fashion, and they're already struggling with something. (P9)

It seems like people want to take the emotion out of this because the emotion is messy. And painful. And you know, you can't. Emotion doesn't really fit in the decision tree, right? (P8)

It's also very patient-dependent ... some patients ... have unreasonable expectations, they're asking, you know, hourly for something that is going to take a week. Other patients are kind of disengaged from the process and after the first disclosure; "OK, I get it. I don't want to keep talking about it." And that's their prerogative. (P6)

Patients and families who cooperated with the CRP process – i.e. were responsive to the hospital's attempts to communicate but did not make excessive demands on the hospital representative's time and who did not obtain legal representation – were understood by study participants to be more likely to receive a mutually satisfactory resolution. Patients and families could not be *too* docile, however; organizations still required them to ask for information and compensation or at least hint at the subject.

It's almost like if they [patients or families] file a grievance and they ask a lot of questions, then we give them information. But if it's an event where, you know, they don't ask us too much and we just go ahead and do the RCA and put together- put in place system improvements, we typically- they don't encourage that we contact the family and, sort of, close the loop. Because *if family didn't say anything, then we're not going to, you know, stir it up.* ...

When the family doesn't sue or the family doesn't really- we just, like, we still do our due diligence to document everything and show where the deviations existed and put systems in place. But we don't, like, proactively reach out and say, "hey, are you guys OK? You guys have any other questions?" other than the disclosure during the time of the event and explaining it to the patient and the family during their hospitalization. Unless they call us, we don't tend to, you know, reach out unless we- unless we're required to. Like, unless they call us. And I don't know if that's right or wrong or what, you know? I just follow the instructions of the senior leaders and *don't want to, you know, rock the boat* (emphasis added). (P1)

[Whether the hospital provides patients with information about harm events] depends on if they ask. And that's unfortunate. I don't think the pendulum has swung yet. ... we're not there yet. And I think, again, it's competing priorities. ... If a patient complains we look into things. And I think we're good about doing that – when a patient complains. (P4)

The fact that patients and families who were more polite and passive seem less likely to receive information or compensation than those who were more aggressive was a source of frustration for at least one participant:

And then you have the other family that just waits so patiently and never makes a fuss. And because they don't say, "Oh, I think you should give us some money" we're never going to pay them? That's not right. (P8)

If patients obtained legal representation, this generally ended the CRP process, according to participants.

The unfortunate [cases] are when the patient thinks ... we owe them ... a big number and we come in with a smaller number. And when that happens ... then they either choose to accept that offer or they choose to get a lawyer involved and then ... from that point ... the Risk Manager may still be involved but mainly it goes to the lawyers ... and that's sort of sad because ... at that point, from a patient's advocate perspective ... I'm told not to talk to the patient anymore. And there have been times when I'm told not to talk to the patient anymore when I feel like there was still a chance to keep that relationship going... (P2)

For one case, I was like, "Well, now this man is here. He can't leave the hospital. This [medical injury] occurred and they have a small child at home. They're both not working. Like, at what point do we consider ... do we pay their living expenses? Do we offer food?" ... We started to have these conversations, but then they had a really high-powered attorney, and everyone's thought was like, "well, that attorney knows that he's going to get paid out so he's going to help him financially." And ... it was a provider situation, and not really us. So

then that kind of stopped everything. Where I felt like it wasn't the right thing to do. Because I felt like we still owned it – it still happened in our doors. (P9)

Patient Liaison Factors

Some participants described a case manager-like approach to CRP being much more successful and efficient than a team approach. Some participants emphasized that the liaison between the organization and the injured patient or family was a challenging role requiring time, specialized skills and abilities, and a certain amount of authority to speak on behalf of the organization to be successful. One participant described an ideal liaison as follows:

The hardest part is speaking with the patient and the family – in being that liaison – just because it takes such a diverse skill set ... To find someone who is able to be empathetic and highly communicative ... but also understands enough of the clinical side and the risk side to know the process and to translate between the caretakers, the professionals, and the family. ... [But] they can't just be an empath or have a great clinical understanding; they also have to be able to walk that fine line of saying "no" because oftentimes the requests and demands are unreasonable, so you can't just say, like, "Yes, I understand. We'll give you anything." So it's ... a huge skill set, and to find one person that encompasses every element is the hardest piece. (P6)

[T]hat was the biggest challenge: having the right people to have the conversation with the family and not say something that- you have to say it a certain way, right? ... And we don't have a lot of people that are trained to be able to have those conversations. It was really, like, me that would go and help have these conversations with maybe my CMO [Chief Medical Officer] or my CEO. (P3)

One participant began by describing a well-functioning process but quickly clarified that its success was almost entirely due to the effectiveness of a single person in the liaison role:

We have a pretty good process there because, [our liaison] is really highly respected in our organization and she never hesitates to reach out in a very empathetic and sensitive- And difficult patients and families, she's been able to navigate ... the conversation, get the key players at the table, meet the patients' needs and, I think in many, many cases she's been able to de-escalate them and have a really good outcome whether there was money involved or

not Our reputation and their satisfaction towards the organization has been restored, even if there was harm done. Her efforts have been really instrumental in creating a best of the situation. (P1)

The importance of empathy, trust, and patience to the success of this role was emphasized by a number of the participants:

You just have to listen. ... I'll tell you, there's a lot of people in the organization that just aren't comfortable being able to get to that level to have that conversation with patients. It's like, listen and then "OK, we'll fix it," but in the back of their mind they're like, "well ... this is healthcare ... these are some of the risks." Not really looking at the whole thing or hearing it from the patient's perspective. I think that's the biggest thing, that people aren't able to just sit and really empathize and understand what they're going through. (P3)

It takes a lot of time to be that person to talk to the patient and the family. ... I mean it is time consuming. And energy consuming. And if you've got a physician ... or a risk manager up to their eyeballs already, and you're adding this ... they probably aren't really going to want to sit and talk to somebody for an hour. Because they talked to them for an hour last week and they'll probably need to talk to them for an hour next week. But that role, it's creating trust. That's what it is, and ... that's not easy to speed along. (P8)

One of the biggest things for me is: who is the right person to be *their* [the patient/family's] person at the organization? If they have that person that they have that trust with, it makes it a lot easier to pursue [resolution]. If they don't have a trusting relationship with anyone ... they're incredibly difficult to deal with ... it just doesn't go well. ... I suspect that sometimes ... we could have chosen better who the right person was. (P9)

Various participants had reached the conclusion that it is preferable for both the patient/family and the organization for there to be a single point of contact (liaison) between them. Several described problems when patients or families had to speak to different organizational representatives simultaneously or serially.

If I'm making all these calls, it's difficult if I have one of my ... people ... make the calls to the family that they never even were involved with You don't have a relationship with that patient, and so what I found is ... the most effective way- it was the ones that I started and I ended, and it was me the entire time. Not all these different people reaching out because it- just everybody reaching out, they weren't, like, *invested* in that patient and the patient didn't develop that relationship with them. They didn't feel comfortable speaking up, and everybody says things in a different way or has a different mindset and so the ones that I

was able to establish the conversations from the beginning and throughout were very successful with just one person. I, like, owned that patient. I actually didn't even want somebody to mess up that relationship with me and them because I was afraid they might say something incorrectly. I might lose their trust ... And so I found that those were the most successful ones. And in those times they were very forthcoming [with] information to help the organization. With others, and when other people have been involved and they've tried to make attempts and phone calls and when I wasn't the one that was able to talk to them from the beginning of the event, where I'm playing catch up ... and I'm trying to understand what happened, already they've lost ... trust in everything, that we're hiding something [because] we didn't talk to them right away. (P3)

Discontinuity in who spoke with the patient or family on behalf of the organization was identified by some participants as problematic. For example, one Patient Relations professional explained that her authority to interact with patients ended after either she had sent a grievance response letter within the federally-mandated 30-day time limit, a root cause analysis (RCA) was initiated, or the patient or family engaged legal counsel:

I think we definitely struggle with that [30-day deadline] as an organization because it leads to very generic grievance letters. Instead of being able to provide more detail, having to close it in that 30-day window, sometimes the investigation isn't closed and we don't have final answers. So yes, I do think that knowing that you can get fines for pieces like that does at times hinder the process. Sometimes it helps; sometimes it puts a fire under people that they need to move a little faster. And sometimes you can't get answers that fast. (P6)

The role of a successful liaison included expectation-setting, including explaining the CRP process to the patient or family.

Whoever is talking to the patient and the family needs to understand the process really well so they can explain it to the patient and the family because you have to continuously be setting expectations for the patient and the family. ... I think there are a lot of programs that that get passed off to people who don't understand the goal, who don't understand the process. And they're being expected to communicate with the patients and families when they themselves don't understand how it works. ... What I see happening is you have someone who is not prepared. ... I think most of these programs are very scattered and, "Oh well, we'll really think this through when we have the terrible event," and then they're not prepared. And so then something gets assigned to someone who doesn't have much

authority but suddenly has a hell of a lot of responsibility and is not prepared for that. Then you're asking them to have really difficult conversations with patients and families about things that they themselves don't understand. Those people are likely kind of concerned about saying the wrong thing. Are they going to make a promise that's not going to be kept? Quite possibly. (P8)

Theme 4: Which Events Are Appropriate for CRP?

One participant described still struggling to identify when their organization should activate a CRP response.

Right now, number one, we haven't defined a [CRP] response. I mean, do we respond to everything? ... I think for us to start right at the beginning, we need to define what a [CRP] event is and then what the steps are to respond. (P4)

Some participants related challenges in responding to cases that differed significantly from the paradigm cases for which their CRPs were designed to address. Participants perceived these paradigm cases to be things like:

Wrong site surgeries, medication errors that lead to immediate reactions, not delayed reactions that could have happened and could have not. ... Or like falls that result in immediate injury that clearly had deviations [from the standard of care]. ... That's just not how real life works! [laughing] There's so many other factors that go into it. ... I would love some guidance ... to say, "This is how we make it black and white." ... I would love someone to figure out how we interpret that gray. (P5)

I think if I had to say a generic [CRP] case, it would be like a ... nurse misread the order and gave the wrong medication or the wrong dosage of medication to the patient, but the nurse was, you know, really busy and training another nurse ... and had all these other factors going into it that caused the override of the system, etcetera. ... Doctor holds a little bit of blame because of how they wrote it. Nurse hold little bit of blame because they overrode. The system holds a little bit of blame because blah, blah, blah. Yeah, and so within an hour it's immediately noticed, and everyone rushes and does the right thing. And everyone comes to the bedside and says, "Here's what happened, we're so sorry about it, don't worry, you're OK now, there are no long-term effects. We're good." ... You do a little bit of investigation after the fact, but it's all nicely like wrapped up with a bow on it within, like, two days. (P6)

Commonly encountered departures from the paradigm described by participants included (1) patient harm events coming to the attention of RM/PS/PX through a communication initiated by a patient or family that has already left the hospital (e.g., a grievance letter); (2) the patient or family is represented early on by legal counsel (at which point the organization and physicians are not permitted to communicate directly with the patient or family; (3) the patient or family is unreasonable or only communicates sporadically, or both; (4) a conclusion cannot be reached as to whether clinical care was appropriate; (5) legal causation cannot be determined with any confidence; or (6) substandard care caused harm but did not change the patient's clinical outcome (e.g., the patient was moribund and would have died even without iatrogenic injury).

Participants affiliated with organizations that had achieved some maturity in the initial event response, analysis, and communication aspects of their CRPs reported that their greatest challenges were related to determining whether clinical care deviated from the acceptable standard and whether any such deviation caused harm.

I think the hardest part – it's something we struggle with every day – is "Did the deviation [from the standard of care] cause the harm?" ... That that's probably the biggest struggle we have: an event occurs, but it appears there's not enough clear evidence to show A caused B, and we really struggle with that. (P5)

I would say that not knowing if error caused the harm or not is the biggest contributing factor in doing it [event analysis] in a timely manner. I think that oftentimes these cases are very protracted because of that piece of it. (P6)

This is particularly challenging when considering errors of omission (such as a delayed diagnosis) over a long period of time and against the background of the patient's underlying malady. Such ambiguity is frustrating.

We use ... a phrase internally: "is it *more likely than not* that it [a deviation from the standard of care] contributed [to harm]?" That's all so subjective and I just hate the subjectiveness of it all. There's times where it's, like, "maybe – I don't think we'll ever know if it did cause the

outcome." And for me that's incredibly frustrating, because I want ... to do the right thing but it's not clearly showing me a path of what the right thing is. (P5)

Theme 5: Inertia and Resistance

Health care organizations and medical staffs default to inaction, denial, deflection, and often secrecy after harm (Gibson & Singh, 2003). Applying CRPs required RM/PS/PX to actively push against the gradient in a context of competing priorities and resource constraints. Participants described encountering active and passive resistance to applying CRP to various events from all levels of their organizations: front-line staff, middle managers, medical staff, and top leadership. The also explained tactics they used in attempting to overcome resistance.

Front-Line Staff and Clinical Managers

As conceptualized by the CANDOR toolkit and the insurer's CRP-building program, the CRP process is normally initiated by front-line staff reporting a patient harm event to an organizational representative who can then activate an organizational response. For various reasons, however, front-line staff do not always reliably report patient harm events.

Sometimes, you know, [staff] will put a [incident report] in, but if it's a Friday, or if it's a Saturday, you know there's something that needs to be done right away ... sometimes we get a phone call, sometimes we don't, and honestly it's the severity of how bad it was and how they perceived it to be ... And sometimes they perceive it to not be very bad and then we look at it, we're like "Yikes! You know we should have had a phone call" ... I feel like people didn't understand and still don't understand the importance of it. ... You report these to us so we can come in and do service recovery, introduce ourselves, let them know what we're doing about it and ... start that early conversation. (P3)

I think right before the pandemic, we were doing pretty good about being reliable [with respect to] timely reporting People would get caught up in an event; they would not report it right away and there might be challenges around ... did they enter the incident report and not ... call the House Sup[ervisor] ... who didn't escalate to the Administrator on Call, which then goes to Risk? So that's really where I was seeing some fall through, is that it would become like Monday morning notification for something that might have happened

on a weekend. ... I think now the challenges are that everyone is so burned out with COVID and all of the management that goes on with that, that our focus has shifted more towards, like, the safety of the staff. (P9)

Another participant described driving the response to a harm event in the face of opposition by front-line staff and their manager:

My whole team [RM/PS/PX] wanted to do [CRP]. We all believed in it, and we all knew that this was the right thing to do. ... I had one big event where I followed a patient for ... nine, ten months ... I was using all of the various techniques ... to be able to seek early resolution. Yeah, I was really involved ... it was kind of just like a small group – one man show per se – because it didn't have- I had the support from the leadership but didn't have support from the frontline staff Um. Yeah. It's tough. ... I definitely [had] full support from my CEO, my CMO [for] doing the right thing, but when it got to the level of, like, say, the leadership of the of the department ... they have a different mindset, I will tell you that. ... Many people have a really difficult time having difficult conversations with patients and families – listening to them, being empathic and opening up – because they're very defensive and their guard is up, you know, and they're really there to defend their staff and the care that was provided by their staff and all of the issues and the barriers and the roadblocks that they have. And sometimes it's difficult for them to put that aside and really listen to the patient. So my CEO got it, my CMO got it, but I will tell you that the rest of them, the staff didn't quite understand what we were doing because they felt like they weren't being heard and it was just about that patient there. (P3)

Although they had no direct financial or personal stake in the process, middle managers sometimes opposed aspects of the CRP process for various reasons. One participant described managers' desire to protect their staff, whom they perceive as already being burnt-out by the COVID pandemic, from the trauma of knowing they contributed to patient harm.

It's a culture of, not hiding, but *protecting* your staff and your employees from- it's a very hard thing to experience from their perspective and I'm dealing with this constantly right now, especially with how stressed out the staff is. There's this element of wanting to protect people from knowing they harmed someone. ... [T]to find out that they have harmed someone or have caused any sort of effect down the line that's impacted someone's experience in the hospital, it's traumatic for them. And I think there's an element of protecting staff from that feeling that is very pervasive. ... I think the hesitancy now, and from my experience of working on trying to be as open and transparent as we want to be, is protecting [from] the harm it may cause to our providers and staff. (P5)

In contrast, another participant shared that middle managers at her organization preferred to blame front-line staff for harm events rather than engage in the more difficult work of system redesign – especially if it meant stressing accountability and responsibility upwards.

We probably err more on the side of ... placing blame because it's easier to blame an individual than to fix some of the system issues The culture is definitely moving in the right direction, but I would say we err ... more on the side of, "These are too big of issues to fix as a system. They just should have followed policy...". (P6)

Even management personnel who might be supportive of their organization's CRP had to balance rival demands on their time and attention.

We're going to try to build a team but all of them have competing priorities; they're all managers and supervisors [with] competing priorities. (P4)

Medical Staff

Every participant described hospital medical staffs as both important partners in, and significant sources of obstruction to, the application of CRP to patient harm events.

I would say one of the things we struggle with a lot is that the physicians are not our employees. And things that happen with physicians, the physician has to be on board. I am not going to go talk to a patient without the physician present. If it's truly a physician-only issue I will follow their lead on what they want. So if it's a physician related-issue now, that doesn't mean I'm not going to reach out to my physician leadership to get their input ... but I think that the physician involved or the group involved needs to participate. I cannot do this without them. And then that leaves it up to those [physician] leaders to decide whether or not they're going to follow the process or not. ... I feel like that usually goes well, but often ... there are times that an individual physician does not want to do that, so that's why it doesn't occur (emphasis added). (P5)

Participants described various motives: fear of litigation, shame and embarrassment, fatigue, resentment toward management for inserting themselves into the doctor-patient relationship.

They [physicians] always go back to the litigation. That's what seems to be the driving fear here. (P9)

One of the biggest challenges for us is not my CMO; he's a physician, he's excellent, he gets it, he understands it. It is the rest of my physicians – that's the biggest challenge. They ... don't want liability, they don't want to be sued, they don't want to be involved. They want to blame others or blame nursing. They want to ... blame that the Director knew about this the whole time, they didn't do anything about it ... those are the things that would come up. And there will be a lot of anger It's always stressful when you bring a patient safety event with some of our physicians, even like at the [Medical Executive Committee] level. It's just, you hear a lot of excuses and defensive remarks. ... If we want to be successful, we've all got to ... support each other. And that is ... one of the biggest challenges. (P3)

I think our leadership has very much bought into the process; I think we face the biggest pushback from, occasionally, legal counsel – depending on what the situation is – and most often from the physicians. I think most often it is the physician who is struggling with that disclosure because they've been told- most of them have been told their entire career not to do that, and that they're opening themselves up to lawsuits. And I think we're still working on changing that culture and perception. [Laughs] We'll let you know if we find the magic formula. (P6)

The physicians aren't as likely to look at system process if it's involving them. They're good at looking at system process for nursing and others, but looking at them it's, "Oh yeah, everything was appropriate. I did it exactly the way I always do it." ... And so, when an event happens, it usually wasn't them that caused this per se, it was something, someone else and they don't really want to be involved because now they're tied to that patient and potentially could have some liability or a lawsuit. And again, our physicians are not our employees, so that's also another big issue. (P3)

Consistent with the findings of Banja (2005, 2019), the shame, embarrassment, and potential threats to physicians' identities associated with having injured a patient due to an error were also identified as reasons physicians may wish to simply avoid doing anything they are not required to do after patient harm events.

One of the words ... was *embarrassment*. ... You feel 'I've broken my sacred trust ... to this to patient and family.' And God forbid it's a child. ... There's a lot of emotional components. ... We feel so terrible. Nobody wants to believe they've done harm. It's almost the thing that everyone knows, and yet ... the thing that keeps us from being honest and approaching people. (P7)

One participant described the physicians' involvement as something that was nice to have in these situations but not strictly required for communication to proceed.

I don't think that [physicians'] absence is a barrier [to communication with patients about harm events], but I also don't think it's the best thing for the patient and the family. ... And that's the conversation that I always try to have with them, right? They're the leader of the ship. ... [W]ith them not being present, or their absence, they [patients/families] don't have that absolute belief that we're going to right a wrong that was done because they ultimately-most patients in my experience, we can tell them the same thing that a physician will tell them, but they do not have that same confidence that's instilled by the ... quiet presence of the physician. (P9)

This reluctance to speak to patients and families about introgenic harm is also seen when accountability may be diffused among multiple physicians or shared with hospital staff.

I think the other biggest challenge is just having the physician support, you know. A lot of things involve a physician and one of the biggest challenges is physicians may not want to come to the table with us, have that conversation. They don't feel like anything was wrong, they want to be left out of it because, you know, "that was a nursing thing." They're not looking at it as, "it was *our* patient." For example, the policy that I wrote, ... one of the pieces is that the attending physician would, with myself, would go and talk with the family. They wanted ... out of it, because, "What if it was a surgeon?" "What if it was an oncologist?" They're like "we don't want to be involved, we don't want liability." ... that was a tough policy to push forward through the [Medical Executive Committee] (P3)

I have large groups of physicians sometimes involved in one patient's care, right? Like, I have anesthesia and surgery and an intensivist, right, and the Hospitalist is giving the care up because the patient is now more ill and it turns into, like, "well, whose responsibility is it?" And it's not that they don't know, it's that *none of them want to own it right now.* ... I think it is culture. ... They're afraid of the liability. They are afraid of peer review at my institution. And the time. Like, the other thing that I hear is the time. ... [T]he intensivists or hospitalists ... they're like, "I want to do that. I don't have the time. I have this many other patients." So those are, I think, the main buckets for us (emphasis added). (P9)

Two participants described members of the medical staff feeling vulnerable to attack by other members if their errors were exposed – particularly among clinicians whose place in the medical staff hierarchy is more contested, such as female surgeons and nurse practitioners.

We have some female physicians, too, that have a really hard time with other male physicians. And to admit that they did something wrong, it's hard ... it's hard. (P3)

Several participants made clear that *medical staff peer review* is not of use to CRP since conclusions are secret and cannot be used to inform the hospital's internal investigation or communications with patients or families.

The things that don't go so great are when ... things are covered up by the medical staff ... or it just stays within peer review.... And we have a multidisciplinary peer review part where ... they will let you in on the discussion. But then they convene a tighter group, which says ... "within peer review standards," "systems issues," "send it to patient safety and quality," and ... you never really know if they don't want to fix things; they just want to review it, basically. (P7)

Morbidity and Mortality (M&M) conferences, in which physicians and surgeons present case studies to their peers, are nominally undertaken for the purposes of learning from errors and are a required element of residency programs (Garcia & Goolsarran, 2016; Lu, 2005). Like peer review, M&M conferences may implicitly serve other functions as well, such as providing closure for the involved physician or surgeon (Bosk, 2003). When asked whether M&M might be a viable alternative forum for informing CRP processes, participants believed there were opportunities but were equivocal about the chances of success.

As it stands they're very closed; the only people participating them are the physicians for that specific department or even sometimes division depending on the group. It's very clinically-focused, and depending on the department or division they are run so very differently. So, I hear some groups that have very meaningful and impactful conversations in the M&Ms that feel constructive And then you have others that just feel torn apart and torn down by them which, in terms of [CRP], is not helping with the caregiver elements. They know they made a mistake, they feel bad about it already – it just makes them feel worse. So I think, in an ideal world, [CRP] would be a central component of how M&Ms are run, both talking about not just the physical, technical, medical harm that happened to the patient and how it could have gone differently, but also speaking about any further emotional harm, secondary harm that was caused by how the situation was handled. Or vice versa: how it was handled well and really [avoided] some of those additional harms. (P6)

This participant believed that when it came to the medical staff, the fiscal impact of decreased defense costs and indemnity payments would be the deciding factor in whether they supported CRP.

I think medical staff, it's going to be a number of years of seeing the fiscal impact. I do truly think that when it comes to those groups, money speaks louder than anything else. As well as the success stories ... of people who were involved in events, were very honest and were able to heal relationships with patients rather than getting sued. I think the slow spread of those stories is going to make the difference as well. And like I said, ... saving their bottom line. ... In healthcare oftentimes the bottom line, the dollar amount, is what holds the most power. So, I appreciate that so much of [CRP] shows that it's actually going to help your bottom line, help your dollar number, to do these programs and to implement them to get people on board. And yeah, I think that sometimes there's still so much fear around the power that money holds. (P6)

One participant was cautiously optimistic about the newer generation of physicians, which appeared to be choosing more candor with their patients after their error causes harm, although the likelihood of them doing so seemed to decline as the severity of the injury increased.

Some of the [senior physicians] are not going to [get] it ever, but most people will and [medical] students will because, you know, they really ... understood that ... to err is human, but to forgive is divine. I mean – you've got to forgive yourself. . . . I think it's gotten better. I think people are willing to stand up and say, "I made a mistake" and, you know, "I'm going to tell the truth to this family and we'll see how it goes." ... We have some successes ... I think it's working far better than it used to. But I don't think it's the majority of cases Again, it's ... the severity of the case (emphasis added). (P7)

A participant described a difficult interaction about a medical injury with a physician whose COVID-related burnout was a barrier to applying the organization's CRP in a particular situation.

[One case] I'm thinking of: Was it a delay in treatment? Perhaps. Or was it bad documentation? We're not sure, so what really are we telling the family? And everyone's so burnt out that they can't really – including the physician – is like, "Well, what really happened?" and "Do I have the time to do this?" ... "Yes, we know we have an issue [but] the outcome wouldn't have changed. This patient" – quite frankly this is what I got told – "was going to die, would have died. Do you disagree?" "Well, no." "There was already end-of-life conversations, so you want me to stop when I have seven other patients that are vented, COVID-positive, and that are requiring-like, one of them is about to code. One is

coding and I have- you know, I'm doing life saving measures on another one!" Right? So, it's like, that's just their reality right now. (P9)

Organizational Leadership

While most participants indicated that the senior leadership of their organizations had bought into the principles of CRP, some noted a gap between leaders' affirmation of CRP and their support for transparent communication and proactive offers of compensation when actual patient harm events occurred.

I think the prior administration tried to minimize and hide information and therefore the discussion with the family and patients was ... really discouraged, because I think that they were afraid that it would demonstrate that we're to blame. Or the provider wouldn't manage the conversation ... appropriately, or ... it would cost the organization money. So, I think that that portion is still a little bit gray, on getting permission from the senior leaders. Even though the leadership has changed. ... I think the culture is very punitive and there's a lot of blame. And even when these events started surfacing ... providers and leaders were very defensive and in denial. I think that they're still very guarded and they feel exposed when these kinds of discussions happen at the board level or, you know, in the executive level ... I think that punitive culture is part of their mindset, even if even if the administration has changed, they're still very fearful. (P1)

One participant described limiting what information is shared about adverse events with the executive committee of the medical staff and with the board of directors in order to protect staff in a punitive organizational climate.

The doctors start targeting, going after named individuals ... it's really like, "Well, I need to know who" or "What are the names? *Who* is it in surgery that did this? Is it this tech?" ... This a very punitive way of looking at things. And so we wanted to protect our staff too. (P3)

Some participants believed they had the general assent of their organization's senior leadership but needed them to be more knowledgeable about the particulars of a CRP response.

I think [the challenge is] getting admin to buy in – which they do on paper. In other words, "Yes, we're behind this but what does that look like?" Getting people acquainted with a [CRP] event. You know, we've got to do some education there. (P4)

A participant who had described her organization as having a punitive culture explained having to obtain permission from multiple authorities before being allowed to share information about harm events with the patients who had been harmed by them.

They don't [speak to patients about possible errors] until like we get Legal and Patient Safety involved and we make a point of calling the provider and there'll be everybody on the communication ... but it's not been automatic like, you know, the way it should be. ... Patient Relations – reaching out to the family and the patient – has to be sort of ... granted permission before she proceeds. ... It's very protected. You have to go through a lot of channels like Legal, Compliance, other senior leaders. (P1)

Another participant explained that non-physician leaders were unwilling to discuss surgical errors with patients without the surgeon's permission.

I think they [hospital leaders] feel intimidated because of the physician dynamics. And doing the disclosures Because then they're hearing from the doctors, "Well, what about the liability? What if I get sued?" Right? I think it's very, at least for me, its very physician-driven. (P9)

Competing Organizational Priorities

Consistent with prior research, several participants described challenges operationalizing their CRP in the face of competing organizational priorities – particularly since the onset of the COVID pandemic.

Staffing has been a huge issue for us here ... so it's that constant triage of incidents that's hard for staff. And things that I hear sometimes when I round is like—even the other day I was reviewing an event and they said, "Well, were we not as timely as possible in whatever care that we were going to provide?" And yes, there was a lack of timeliness, but some of the things that you hear, "Well, they were going to—they're all dying. They all die." And it's like, "well, yes, but we still continue to work through the reliability, right?" Like this isn't going to

be a long lasting— or hopefully, you know, will eventually normalize, I think, to something a little—that's not just all pandemic care. (P9)

There's so many other pressing issues that honestly my [CRP] initiatives were just like, "Oh, OK, you do what you can with the program, but we don't have time for all this." At the end of the day, though, this is what we should really be driving all of our practices with. You know, system process, fixing broken things. I mean our staff would feel more supported, our patients would be safer. ... It's everything we should be doing; people look at it as more work, but they don't realize that this whole program, it really, really solves a lot of stuff. (P3)

With leadership, I think at our organization specifically, it's not a matter of needing them to buy in more or any of those things, it's purely a matter of too many things to focus on. ... I just think it's a matter of, they don't have the bandwidth to focus on this [CRP] if someone is not reminding them to. (P6)

Discussion

The findings of this study were consistent with previous research and extended what is known about barriers to applying CRPs to patient harm events. Participants described inadequate time and resources to consistently operationalize their programs; individual physicians' discomfort with discussing harm events with patients; difficulties managing the expectations of patients and families with respect to CRP processes; competing organizational priorities (in this case, primarily the COVID-19 pandemic); mistrust between key individuals; and turnover in key roles. The study participants also described a level of complexity and discussed challenges that had not previously been reported in the literature, such as resistance from front-line staff and middle managers, uncertainty as to whether or how to apply CRPs to events with unusual fact patterns, and the problems that arise when legal causation cannot be determined. Participants also described the factors that made successful application of their CRP more likely, including one previously found by Mello et al. (2014b) – having an inspirational champion within the organization. Additional factors illuminated by participants were the qualities of an effective organizational liaison with injured patients and families and the importance of social networks and social capital in operationalizing CRPs. Selected themes will be explored in more detail below.

Complexity

Participants revealed how the complexity that characterizes today's hospital care affected their ability to apply their CRPs to actual events: system inputs and outputs are asymmetrical and the vigor of an organization's response to an injured patient may depend more on the robustness of the risk manager's social network or the caprice of an involved physician than on the severity of the harm or the certainty of causation. Study participants disclosed that the boundaries of their

communication and resolution programs are contested, with competing ideas on when to activate the CRP and when to provide a more traditional organizational response. And program outcomes often appear to be emergent rather than resultant, flowing from unpredictable interactions between transient conditions.

Illustrating a single facet of this complexity, **Appendix 2** is configural work system diagram modeled after the work of Holden et al. (2013) in the context of the SEIPS 2.0 framework. The diagram represents how the same system components and interactions necessary for successful performance of core CRP processes (in this example, determining what to tell a family about potentially inappropriate hospital care that appears to have caused serious harm) can also produce process failures. Any such diagram is descriptive rather than normative – intended to explain relationships rather than prescribe how they ought to operate. The application of this method to studying critical processes within organization's CRPs is a promising area for future work.

Physician Resistance

Several participants described challenges in obtaining opinions about whether the clinical practice of any individual member of the medical staff contributed to a patient's harm, and even greater difficulty getting that physician to participate in a candid discussion about the event with the injured patient or their family. Physicians' attitudes toward medical error and resultant patient harm have been well studied. In general, physicians focus on the competency and accountability of individual clinicians rather than of systems, having been trained to believe safety and quality are the result of personal skill, vigilance, and memory (Bujack, 2008). Consequently, the possibility that one's error has harmed a patient can be a particularly distressing threat to physicians' self-identities (Banja, 2005; Berlinger, 2005). The shame and embarrassment are compounded by the threat of tort

litigation which by design spotlights individual physicians' performance failures (Bujack, 2008; Liang, 2003).

An additional barrier to physicians' involvement in disclosure conversations is often the uncertainty surrounding patient harm events. In practice, the nexus between a physician's action (or inaction) and a clinical outcome is frequently unclear. In his study of surgical practice at a teaching hospital, Bosk (2003) observed that surgeons viewed deaths and complications as "occasions for negotiating whether a failure did in fact occur, whether that failure is a result of individual error, and whether or not that error is excusable" (p. 36). Gallagher et al. (2009) explain that "uncertainty is inherent in the practice of medicine, and providers need help with understanding how to manage discussions about uncertainty with patients and families" (p. 902).

For some physicians, CRP could be viewed as an unpredictable alternative to more traditional ways for physicians to discharge any feelings of guilt over harming a patient. Such customs reportedly include the practice of physician "self-forgiveness" described by Berlinger (2005) and variations of the "hair-shirt ritual" of hospital Morbidity & Mortality Conferences described by Bosk (2003) in which "the erring surgeon's superior ... combines religious and secular roles ... forgiving both the error itself and the person who makes the error" (Berlinger, 2005, p. 88).

Some participants noted that it was far easier to discuss 'system failures' with patients and families if no mention had to be made of failures by any particular individuals – especially physicians. This is likely to be unsatisfying to many patients and families who are known to want "face-to-face apologies from the practitioner(s) involved in the incident" and who find expressions of remorse from hospital representatives who were not involved in the patient's care to be inauthentic (Moore & Mello, 2017, p. 792). Studdert & Mello (2019) explain how hospitals'

contemporary "systems" perspective of patient safety can conflict with injured patients' desire for personal accountability:

Patients and family members ... want to know that someone is genuinely accepting responsibility for what occurred. . . . They have very limited tolerance for descriptions of causal webs and upstream determinants—convolutions that deflect attention from the role of people. There is no escaping the reality that families' reactions to the experience of a harmful medical error . . . include expectations of individual accountability. But the centrality of systems thinking within health care has inhibited the providers' capacity to discern and meet this expectation (p. 440).

Communication and resolution programs attempt to create a safe opportunity for acceptance of personal responsibility, apology, and even forgiveness between injured patients and involved clinicians. It is unclear how successful the application of a CRP can be when involved physicians refuse to participate, leaving hospitals with only explanations of 'system failures' to offer patients and families.

Social Networks and Social Capital

A significant contribution of this study is insight into the importance of informal social networks and social capital in 'greasing the wheels' of their organizations' CRPs. Risk management, patient safety, and patient experience professionals who were situated within robust social networks and who possessed sufficient social capital were better able to overcome active and passive resistance to applying their organizations' CRPs. Future research could apply social network analysis to better understand the relationships that facilitate or impede the application of CRPs and how social networks relevant to CRPs recover from turnover in key roles. Additional topics for study might be how social capital is accumulated over time, how it is used, and how key individuals choose whether to use their social capital to have CRPs applied to particular events.

Power and CRPs

Perrow (1999) observed that "we miss a great deal when we substitute culture for power" (p. 380). While some have described CRP as involving a culture shift (Mello et al., 2016; Pillen et al., 2016; Gallagher et al., 2020), it could also be characterized as entailing a shift in power relationships among patients, physicians, health systems, malpractice insurers, and lawyers. By reconfiguring who can participate in making the agenda for how organizational stakeholders react to patients after medical harm and the remedies that are available, CRP represents movement within the second dimension of power described by Lukes (2005). Traditionally, after a potentially compensable medical injury the list of options available to the physician or operational manager for responding has been tightly controlled by individuals who are physically, temporally, and ethically far away from the bedside where care is provided and where harm occurred – risk managers, insurance claims representatives, and attorneys. The permitted options were generally limited to 'admit nothing' or 'apologize that this happened without admitting liability' (Studdert & Mello, 2019). Having been assured that CRPs will not result in more claims, but rather will decrease defense costs and indemnity payments (Boothman, 2016; Lambert et al., 2016; Mello et al., 2017), some of those risk managers, insurance claims representatives, and attorneys now share the post-harm agenda-setting with physicians and other clinicians, patient safety and patient experience professionals, and other advocates of more proactive, compassionate, and fair options for responding to injured patients. Even injured patients and their families can have a hand in setting the agendas for the post-injury relationship, having been granted permission to ask for information, apologies, financial compensation, and other remedies such as the opportunity to tell their story to clinicians.

Left unexamined by the CRP literature has been operations of power in Lukes' (2005) third dimension. While CRP may reconfigure *who* gets to participate in setting the post-harm agenda following particular events, the range of possible agenda items remains constrained. The 'rules of the

game' are unchanged. These include the kinds of injuries for which CRP can be used as well as the kinds of interactions that are possible and those that cannot be imagined (e.g., restorative approaches). None of the underlying power structures are threatened by CRP; hospitals and physicians retain the prerogative of simply not applying their program to any given event, and patients and families cannot require it (if they are even aware of its existence). In this sense, perhaps, CRPs may be novel but not new. Participant 8 touched upon this topic:

I think it would be great if everybody got religion about it [CRP], but I think a different way to go about it is to proactively educate patients and families about these programs so that they demand it, and they expect more and they understand the process better. They don't think they have to go to an attorney or do nothing, because I think those are the two responses that seem to be there. But they don't know any better, and so ... the providers have all the power.

When and For Whom to Apply CRPs?

Embedded in every system is an implicit model of its users (Bergström, 2020; Hochstein, 2021). The CRP paradigm was conceived and developed with certain assumptions about the characteristics of the professionals and patients who would use communication and resolution programs and the kinds of events for which the programs would be employed. Study participants described encountering a broader variety of events, patients, and provider configurations than many stakeholders within their organization believed CRPs were meant to address. While acknowledging that the principles underlying CRPs should apply to all medical injuries, study participants operating under time and resource constraints admitted to having to choose which events would receive CRP treatment. In practice, these tended to be events involving significant harm (and therefore potential liability) or those in which the patient or family had requested ongoing communication about what had happened or compensation, or both.

This challenge may be more than a resource problem, however. Whereas health care professionals, insurance claims representatives, and lawyers tend to conceptualize medical harm in terms of discrete adverse events (e.g., an incorrect medication dose, health care-acquired infection, or missed radiology finding), Vincent & Amalberti (2016) note that for patients, medical harm is cumulative and is defined much more broadly. The jurisdiction of the RM/PS/PX professionals who participated in this study was generally limited to circumscribed events occurring within their facilities and involving employees of the facility, yet Carayon et al. (2020) take the position that "looking at only one work system at one point in time is limiting and does not consider the temporal changes and adaptations that occur, as well as the navigation of patients among and between health care organizations" (p. 4).

Consider the example of an elderly hospital patient who becomes delirious after heart surgery and as a result suffers distressing cognitive impairment for almost a year afterward. Although this individual and her family subjectively experience harm, it would almost certainly not be characterized as a compensable medical injury by hospital risk managers or insurance claims professionals – even if it might have been prevented had precautions been taken. This is because delirium is a known complication in this patient population and the injury could be seen as entirely psychosocial rather than physical or economic. Such gaps between what Merry & Brookbanks (2017, p. 186) refer to as *factual* causation and *legal* causation of patient harm are quite common. The mismatch between the various forms of medical harm patients may experience and the forms of medical harm CRPs are prepared to address (usually requiring both factual and legal causation) may be problematic, and the study participants demonstrated an uneasy awareness of this tension.

Incrementalism

For the most part, study participants described incremental modifications to existing organizational responses to adverse events rather than a revolution in accountability among their health care organizations. Although some commentators have described CRPs as a paradigm shift away from traditional "deny and defend" responses to malpractice (see e.g., Boothman et al., 2012), that 'traditional' approach is arguably something of a straw man. Even in organizations without CRPs, disclosure of adverse events to patients and families has been an expectation for almost 20 years (Agency for Healthcare Research and Quality, 2019). Although promoters of the CRP movement have put considerable effort into distinguishing it from the earlier "disclosure and apology" movement, to the participants in this study the practical differences were less dramatic. This is not wholly surprising if one considers how policy is often made and carried out. In his theory of policy-making by successive limited comparisons (commonly called "muddling through"), Lindblom (1959) explains that, for various reasons, policy changes are most often simply modifications of existing policies. Like twigs sprouting from a tree branch, developments tend to emanate from established structures. He notes also that even though it may be impossible for stakeholders to reach agreement on the values behind a policy, it is not necessary that they do so. Administrators, stakeholders, and advocates may agree on a policy even if they have different values, for one person's means may be another's ends, and the same process can meet multiple objectives. Conflict among groups with differing goals is a common feature of organizations (Perrow, 2014), and health systems are no different. Yet hospital administrators, medical staff leaders, RM/PS/PX professionals, malpractice insurers, and patients' rights advocates might all support CRPs for various reasons; their values and goals need not align for CRPs to be adopted by health systems. Conflicting values and goals may re-emerge when the time comes to apply the organization's CRP to a particular event involving specific stakeholders, however. Latent goal conflict, activated when one or more

stakeholders' interests are threatened, may partially explain the resistance to applying CRPs from various quarters described by study participants. This warrants further study.

Secrecy

Secrecy was a theme that ran through most interviews. Hospitals are characterized by a remarkable degree of secrecy; due to the application (and misapplication) of patient privacy rules and medical staff peer review privilege a large amount of organizational experience never results in learning. It is often said that patients and families sometimes resort to malpractice litigation in attempts to discover the truth about a medical injury; they are often disappointed to find that incident reports, root cause analyses, and proceedings of medical staff peer review committees are protected from discovery. So closely guarded are the secrets of medical staff peer review, in fact, that participants in this study – which included risk managers employed by hospitals to investigate patient harm events and manage malpractice claims – are generally not privy to the outcomes of peer review proceedings. Although medical staff peer review is not intended to inform conversations with injured patients and families about potential malpractice, study participants made it clear that medical staff secrecy and lack of cooperation was a barrier to applying CRP.

Vaughan's (2016) extensive discussion of structural secrecy within organizations provides additional insights into the barriers described by some participants. She describes how, in order to prevent information overload, official organizational practices can deliberately limit the amount and kind of information flowing to particular positions. Complex organizations are characterized by teams with specialized knowledge; since specialized work units and specialists will not always understand one another, a "residue of uncertainty" often lingers behind communications (p. 251). Given the impossibility of knowing and understanding everything happening within the

organization, top leadership comes to rely upon signals (some of which may be missed because they are weak or mixed) to prioritize issues requiring their attention. In the context of a hospital attempting to institute CRP, some study participants described top leadership as having limited capacity for involvement in operationalizing the programs and their relying upon specialists (RM/PS/PX) and signals (including claims and lawsuits, or the lack thereof). Future research into executives' perceptions and beliefs about the frequency and severity of patient harm occurring in their facilities (and therefore how they ought to resource their CRPs) may be informative.

It is also noteworthy that the very existence of a CRP at any particular hospital is kept secret from patients and families seeking care there unless the hospital chooses to reveal it. In a competitive industry subject to scrutiny by both regulators and news media, there are some obvious reasons why hospitals avoid drawing attention to the risks of medical harm. Yet this secrecy has the effect of preserving the hospital's prerogative to maintain the "wall of silence" after patient harm. Patients and families could, for example, be told upon admission about a hospital's CRP and that they should expect open and honest communication and – when appropriate – fair compensation if they experience medical harm during their hospitalization. Such a practice would be particularly remarkable in light of the national trend to further limit patients' options after harm by asking (or requiring) them to sign arbitration agreements and waive their constitutional right to trial by jury with judicial oversight during the intake process (Sachs, 2018). It is currently unknown how patients and families would react if told – before experiencing medical harm – to expect CRP; this is an intriguing topic for future research.

Limitations

Data generated by an interview can be influenced by the interview process itself, and some commentators have even asserted that "interview data may be more a reflection of the social encounter between the interviewer and interviewee than it is about the topic itself" (Rapley, 2008, p. 16). The interviewer in this study was employed as a senior director at the firm providing professional liability insurance to and financially incentivizing CRPs to the health systems that employed all but one of the interview subjects. An interviewer whose employer was disinterested in the subject matter of the study may have elicited more or different information.

The biases of the researcher should also be considered. The author is a health care industry insider who has been involved in numerous patient harm events during 12 years of emergency nursing practice in hospitals and an additional 12 years as a risk management and patient safety professional. In his role with the professional liability insurer, the author actively promotes communication and resolution programs, creating and delivering educational content and providing technical assistance with CRP implementation efforts.

An additional limitation of the study was the relative homogeneity of the study participants, all of which were risk management, patient safety or patient experience professionals and all but one of which had professional backgrounds as clinicians. Many study participants viewed their roles as being critical to their organization's CRP. While this perception may have been correct, participants may also have been subject to the "fallacy of centrality" – individuals who believe they are central to a system tend to assume that if anything about the system is noteworthy they will know about it (Chassin & Loeb, 2013). Future research may find that interviews with other stakeholders, including organizational leaders, medical staff leaders, staff physicians, non-physician practitioners, insurance

claims professionals, patients and their families shed additional light on the barriers to and facilitators of applying CRPs to events.

Conclusion

This study explored the barriers to and facilitators of applying communication and resolution programs (CRPs) to patient harm events in U.S. hospitals. The most salient themes in regards to CRP that emerged were the central role of risk management, patient safety, and patient experience professionals and their informal networks; workload and competing priorities among key individuals; the complexity of interactions between hospital representatives and patients or families who had experienced medical harm; the challenges in determining (or negotiating) which events warrant CRP application; and working to overcome active and passive resistance to CRPs – particularly from physicians.

The findings of this study provide more insight into the complexity of organizational processes as they relate to CRPs and provide possible explanations for why the programs are not consistently and reliably being applied to patient harm events at hospitals that have committed to implementing CRPs. To return to the question posed by Gallagher et al. (2018) of whether CRP programs fail to achieve desired outcomes because of "conceptual shortcomings or incomplete implementation," the findings of this study suggest that the answer is both.

Fortunately, the CRP movement is vibrant and committed to continuous improvement. The U.S. health care industry has seen good ideas that were initially met with enthusiasm but, applied mechanistically, never realized their full transformative potential. By avoiding technocratic hubris and maintaining a spirit of curiosity, the CRP movement can continue to flourish. As Boothman (2016) noted in the context of CRP, "fixes must be tried and tested for effectiveness and durability, and to detect unintended consequences, because health care is interconnected and the status quo resists change" (p. 2489). Potential topics for future research include using social network analysis to identify and help optimize the networks within organizations that are relevant to CRP; studying how

key individuals accumulate and choose to exercise social capital in order to apply CRPs to individual events; the beliefs and experiences of patients, physicians, and health care executives regarding CRPs; and how to reconcile patients' cumulative and broadly-defined experiences of medical harm with CRPs' comparatively narrower focus.

References

- Agency for Healthcare Research and Quality. (2019, September 7). Disclosure of Errors. https://psnet.ahrq.gov/primer/disclosure-errors#
- Antonsen, S. (2009). Safety culture and the issue of power. Safety Science, 47, p. 183-191.
- Banja, J. (2005). Medical Errors and Medical Narcissism. Jones and Bartlett Press.
- Banja, J. (2019). Patient Safety Ethics. Johns Hopkins University Press.
- Bell, S., Smulowitz, P., Woodward, A., Mello, M., Duva, A., Boothman, R., & Sands, K. (2012).
 Disclosure, Apology, and Offer Programs: Stakeholders' Views of Barriers to and Strategies
 for Broad Implementation. The Milbank Quarterly, 90(4), 682–705.
- Bergström, J. (2020, January 21). *Joint cognitive systems*. [Lecture]. Human Factors and System Safety Learning Lab, Lund University, Lund, Sweden.
- Berlinger, N. (2005). After Harm. Johns Hopkins Press.
- Bishop, S. & Waring, J. (2011). Exploring the contributions of professional-practice networks to knowledge sharing, problem-solving and patient safety. In E. Rowley & J. Waring, Eds., *A Socio-Cultural Perspective on Patient Safety*. Ashgate.
- Boothman, R. C., Imhoff, S. J., & Campbell Jr, D. A. (2012). Nurturing a culture of patient safety and achieving lower malpractice risk through disclosure: lessons learned and future directions. *Frontiers of Health Services Management*, 28(3), 13-28.
- Boothman, R., & Hoyler, M. (2013). The University of Michigan's Early Disclosure and Offer Program. Bulletin of the American College of Surgeons.

 https://bulletin.facs.org/2013/03/michigans-early-disclosure/
- Boothman, R. (2016). CANDOR: The antidote to deny and defend? *Health Services Research*, 51, pp. 2487–2490. https://doi.org/10.1111/1475-6773.12626
- Bosk, C. (2003). Forgive and Remember (2nd ed.). The University of Chicago Press.

- Bourdieu, P. (1986). The forms of capital. In J. Richardson (Ed.) *Handbook of Theory and Research for the Sociology of Education* (pp. 241-258). Greenwood.
- Braithwaite, J., Runciman, W. & Merry, A. (2009). Towards safer, better healthcare: harnessing the natural properties of complex sociotechnical systems. *BMJ Quality & Safety in Healthcare, 18*, 37-31. doi:10.1136/qshc.2007.023317
- Bujak, J. (2008). Inside the Physician Mind. Health Administration Press.
- Carayon, P., Hundt, A., Karsh, B., Gurses, A., Alvarado, C., Smilth, M. & Brennan, P. (2006). Work system design for patient safety: the SEIPS model. *BMJ Quality & Safety, 15*(suppl 1), i50-i58.
- Carayon, P., Wooldridge, A., Hoonakker, P., Hundt, A. S., & Kelly, M. M. (2020). SEIPS 3.0:

 Human-centered design of the patient journey for patient safety. *Applied Ergonomics*, 84, 103-113.
- Chassin, M., & Loeb, J. (2013). High-reliability health care: Getting there from here. *The Milbank Quarterly*, 91(3), 459-490.
- Chung, J. (2021, March 25). Error reduction and the future of communication and resolution programs (webinar). *Washington Medical Commission*. https://wmc.wa.gov/error-reduction-and-future-communication-and-resolution-programs
- Coleman, J. S. (1988). Social capital in the creation of human capital. American journal of sociology, 94, S95-S120.
- Cribb, A. (2017). Improvement science meets improvement scholarship: reframing research for better healthcare. *Health Care Analysis*, 26(2), 109-123. DOI: https://doi.org/10.1007/s10728-017-0354-6
- Cross, R. & Prusk, L. (2002). The people who make organizations go or stop. *Harvard Business*Review, 80(6), 104-111.

- Department of Health and Human Services Office of the Inspector General. (November 2010).

 Adverse Events in Hospitals: National Incidence Among Medicare Beneficiaries. OEI-06-09-00090.
- Erlingsson, C., & Brysiewicz, P. (2017). A hands-on guide to doing content analysis. Afr J Emerg Med, 7(3), 93-99. doi:10.1016/j.afjem.2017.08.001
- Gallagher, T. H., Bell, S. K., Smith, K. M., Mello, M. M., & McDonald, T. B. (2009). Disclosing harmful medical errors to patients: tackling three tough cases. *Chest*, *136*(3), 897-903.
- Gallagher, T. H., Mello, M. M., Sage, W. M., Bell, S. K., McDonald, T. B., & Thomas, E. J. (2018).

 Can communication-and-resolution programs achieve their potential? Five key questions.

 Health Affairs, 37(11), 1845–1852. https://doi.org/10.1377/hlthaff.2018.0727
- Gallagher, T. H., Boothman, R. C., Schweitzer, L., & Benjamin, E. M. (2020). Making communication and resolution programmes mission critical in healthcare organisations. *BMJ Quality & Safety*, 29(11), 875-878.
- Garcia, C. & Goolsarran, N. (2016). Learning from errors: curriculum guide for the morbidity and mortality conference with a focus on patient safety concepts. *MedEdPORTAL*, *12*, 10462. https://doi.org/10.15766/mep_2374-8265.10462
- Gibson, R. & Singh, J. (2003). Wall of Silence. LifeLine Press.
- Grimen, H. (2009). Power, trust, and risk: Some reflections on an absent issue. *Medical Anthropology Quarterly*, 23(1), 16-33.
- Haddon, W. (1972). A logical framework for categorizing highway safety phenomena and activity. *Journal of Trauma*, 12(3), 193-207. DOI: 10.1097/00005373-197203000-00002
- Haddon, W. (1980). Advances in the epidemiology of injuries as a basis for public policy. *Landmarks* in American Epidemiology.

- https://www.ncbi.nlm.nih.gov/pmc/articles/PMC1422748/pdf/pubhealthrep00127-0003.pdf
- Hemenway, D. (2009). While We Were Sleeping: Success Stories in Injury and Violence Prevention. University of California Press.
- Hindess, B. (1996). Discourses of Power: From Hobbes to Foucault. Blackwell.
- Holden, R. J., Carayon, P., Gurses, A. P., Hoonakker, P., Hundt, A. S., Ozok, A. A., & Rivera-Rodriguez, A. J. (2013). SEIPS 2.0: a human factors framework for studying and improving the work of healthcare professionals and patients. Ergonomics, 56(11), 1669-1686.
- Holden, R. J., Schubert, C. C., Eiland, E. C., Storrow, A. B., Miller, K. F., & Collins, S. P. (2015). Self-care barriers reported by emergency department patients with acute heart failure: A sociotechnical systems-based approach. *Annals of Emergency Medicine, 66*(1), 1-12.
- Holden, R. & Carayon, P. (2021). SEIPS 101 and seven simple SEIPS tools. *BMJ Quality and Safety,* 30. 901-910. doi:10.1136/bmjqs-2020-012538
- Hochstein, L. [@NoRootCause] (2021, December 14). The system contains a model of the user. [Tweet].

 Twitter. https://twitter.com/norootcause/status/1470796391668600834
- Hsieh, C. H. (2008). A concept analysis of social capital within a health context. *Nursing Forum*, 43(3), 151-159.
- James, J. (2013). A new, evidence-based estimate of patient harms associated with hospital care. *Journal of Patient Safety, 9*(3):122-8. doi: 10.1097/PTS.0b013e3182948a69
- Jones, L., Fraser, A., Stewart, E. (2019). Exploring the neglected and hidden dimensions of large-scale healthcare change. *Sociology of Health and Illness*, 41(7), 1221-1235. https://doi.org/10.1111/1467-9566.12923

- Kachalia, A., Kaufman, S. R., Boothman, R., Anderson, S., Welch, K., Saint, S., & Rogers, M. A. (2010). Liability Claims and Costs Before and After Implementation of a Medical Error Disclosure Program. www.annals.org
- Kachalia, A., Sands, K., Van Niel, M., Dodson, S., Roche, S., Novack, V., Yitshak-Sade, M., Folcarelli, P., Benjamin, E. M., Woodward, A. C., & Mello, M. M. (2018). Effects of a communication-and-resolution program on hospitals' malpractice claims and costs. Health Affairs, 37(11), 1836–1844. https://doi.org/10.1377/hlthaff.2018.0720
- Kisling, L. & Das, J. (2020). Prevention strategies. *StatPearls*. https://pubmed.ncbi.nlm.nih.gov/30725907/
- Kooijman, A. & Oelke, N. (2021). Developing a research program on using a restorative approach to address secondary harm to patients, families, and clinicians after adverse events in our healthcare system: Project summary report [Unpublished report]. The University of British Columbia.
- Kraman, S., & Hamm, G. (1999). Extreme Honesty May be the Best Policy. *Annals of Internal Medicine*, 131(12), 963–967.
- Lambert, B. L., Centomani, N. M., Smith, K. M., Helmchen, L. A., Bhaumik, D. K., Jalundhwala, Y. J., & McDonald, T. B. (2016). The "Seven Pillars" Response to Patient Safety Incidents:

 Effects on Medical Liability Processes and Outcomes. *Health Services Research*, *51*, 2491–2515. https://doi.org/10.1111/1475-6773.12548
- Liang, B. (2003). Error disclosure for quality improvement: Authenticating a team of patients and providers to promote safety. In V. Sharpe, Ed., *Accountability* (pp. 59-82). Georgetown University Press.
- Lindblom, C. E. (1959). The science of "muddling through." *Public Administration Review, 19*(2), 79–88.

- Lu, V. (2005). Error in medicine: the role of the morbidity and mortality conference. *AMA Journal of Ethics*, 7(4):315-319. doi: 10.1001/virtualmentor.2005.7.4.msoc1-0504.
- Lukes, S. (2005). Power: A Radical View (2nd ed.). Palgrave Macmillan.
- Makaray, M. (2013). Unaccountable: What Hospitals Won't Tell You and How Transparency Can Revolutionize Health Care. (Kindle edition). Bloomsbury Publishing.
- Makary, M. A., & Daniel, M. (2016). Medical error-the third leading cause of death in the US. *BMJ*, 353. https://doi.org/10.1136/bmj.i2139
- McDonald, T. B., Helmchen, L. A., Smith, K. M., Centomani, N., Gunderson, A., Mayer, D. & Chamberlin, W. H. (2010). Responding to patient safety incidents: The "seven pillars." *Quality and Safety in Health Care, 19*(6). https://doi.org/10.1136/qshc.2008.031633
- McDonald, T. B., Van Niel, M., Gocke, H., Tarnow, D., Hatlie, M., & Gallagher, T. H. (2018).

 Implementing communication and resolution programs: lessons learned from the first 200 hospitals. *Journal of Patient Safety and Risk Management*, 23(2), 73-78.
- McKnight, E. & Bennington, T. (2010). A Never Event. History Examined.
- Mello, M. M., Boothman, R. C., McDonald, T., Driver, J., Lembitz, A., Bouwmeester, D., Dunlap,
 B., & Gallagher, T. (2014). Communication-and-resolution programs: The challenges and
 lessons learned from six early adopters. Health Affairs, 33(1), 20–29.
 https://doi.org/10.1377/hlthaff.2013.0828
- Mello, M. M., Senecal, S. K., Kuznetsov, Y., & Cohn, J. S. (2014). Implementing hospital-based communication-and-resolution programs: Lessons learned in New York City. *Health Affairs*, 33(1), 30–38. https://doi.org/10.1377/hlthaff.2013.0849
- Mello, M. M., Armstrong, S. J., Greenberg, Y., McCotter, P. I., & Gallagher, T. H. (2016).

 Challenges of Implementing a Communication-and-Resolution Program Where Multiple

- Organizations Must Cooperate. *Health Services Research*, 51, 2550–2568. https://doi.org/10.1111/1475-6773.12580
- Mello, M. M., Roche, S., Greenberg, Y., Folcarelli, P. H., Van Niel, M. B., & Kachalia, A. (2020).

 Ensuring successful implementation of communication-and-resolution programmes. *BMJ Quality and Safety*, 0, 1–10. https://doi.org/10.1136/bmjqs-2019-010296
- Meltzer, D., Chung, J., Khalili, P., Marlow, E., Arora, V., Schumock, G., & Burt, R. (2010).

 Exploring the use of social network methods in designing healthcare quality improvement teams. *Social Science & Medicine, 71*(6), 1119-1130.

 https://doi.org/10.1016/j.socscimed.2010.05.012
- Merry, A. & Brookbanks, W. (2017). Merry and McCall Smith's Errors, Medicine and the Law (2nd ed.).

 Cambridge University Press.
- Moore, J., Bismark, M., & Mello, M. M. (2017). Patients' experiences with communication-and-resolution programs after medical injury. JAMA Internal Medicine, 177(11), 1595–1603. https://doi.org/10.1001/jamainternmed.2017.4002
- Moore, J., & Mello, M. M. (2017). Improving reconciliation following medical injury: A qualitative study of responses to patient safety incidents in New Zealand. BMJ Quality and Safety, 26(10), 788–798. https://doi.org/10.1136/bmjqs-2016-005804
- Onyx, J. & Bullen, P. (2000). Measuring social capital in five communities. *Journal of Applied Behavioral Science*, 36(1), 23-42.
- Perrow, C. (1999). Normal Accidents. Princeton University Press.
- Perrow, C. (2014). Complex Organizations: A Critical Essay. Echo Point Books & Media.
- Pillen, M., Hayes, E., Driver, N., Hodgson, A., Bell, J., Ridgely, M. S., Greenberg, M., de Vries, D., Aunon, F., & Shaw, R. (2016). Longitudinal Evaluation of the Patient Safety and Medical Liability

- Reform Demonstration Program: Demonstration Grants Final Evaluation Report. AHRQ Publication No. 16-0038-2-EF.
- Prentice, J. C., Bell, S. K., Thomas, E. J., Schneider, E. C., Weingart, S. N., Weissman, J. S., & Schlesinger, M. J. (2020). Association of open communication and the emotional and behavioural impact of medical error on patients and families: state-wide cross-sectional survey. *BMJ Quality & Safety*, 29(11), 883-894.
- Rapley, T. (2008). *Interviews*. In C. Seale, G. Gobo, J. Gubrium & D. Silverman (Eds.), Qualitative Research Practice. SAGE Publications.
- Rowley, E. & Waring, J. (2011). Introduction: A socio-cultural perspective on patient safety. In E. Rowley & J. Waring, Eds., *A Socio-Cultural Perspective on Patient Safety*. Ashgate.
- Sachs, S. (2018). The jury is out: Mandating pre-treatment arbitration clauses in patient intake contracts. *Journal of Dispute Resolution*, 2, 117-131.

 https://scholarship.law.missouri.edu/jdr/vol2018/iss2/16
- Studdert, D. M., Mello, M. M., Gawande, A. A., Brennan, T. A., & Wang, Y. C. (2007). Disclosure of medical injury to patients: An improbable risk management strategy. *Health Affairs*, 26(1), 215–226. https://doi.org/10.1377/hithaff.26.1.215
- Studdert, D. & Mello, M. (2019). In from the cold? Law's evolving role in patient safety. *DePaul Law Review*, 68(2), 421-458. https://via.library.depaul.edu/law-review/vol68/iss2/14
- Vincent, C. & Amalberti, R. (2016). Safer Healthcare: Strategies for the Real World. Springer International Publishing.
- Wachter, R. & Shojania, K. (2004). Internal Bleeding. Rugged Land.
- Wears, R. & Hunte, G. (2014). Seeing patient safety 'like a state.' Safety Science, 67, 50-57. DOI: https://doi.org/10.1016/j.ssci.2014.02.007
- Wears, R. & Sutcliffe, K. (2020). Still Not Safe. Oxford University Press.

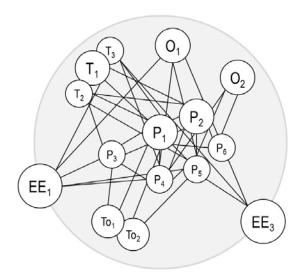
Wojcieszak, D. (2020). Communication and resolution programs need to be effectively marketed to leadership and stakeholders. *BMJ Quality and Safety, 29*, 777.

Appendix 1: Interview Questions

- 1. Please describe your understanding of the goals of [your organization's communication and resolution program]
- 2. What are the challenges with the following elements of a [CRP] response to patient harm events? What makes them easier to accomplish?
 - event reporting and triage?
 - initial disclosure and ongoing communication?
 - event investigations?
 - event analysis?
 - determining whether inappropriate care caused harm?
 - making an offer of compensation?
 - a. Which are the most challenging?
 - b. Why do you think that is?
- 3. Has your training in cognitive interviewing techniques affected adverse event investigations? If so, how?
- 4. Has the [CRP] toolkit been helpful in any way? How?
- 5. Has culture of safety surveying and debriefing affected incident reporting or the way in which adverse events are handled?
- 6. What effect has the COVID pandemic had on your organization's ability to respond to adverse events?

Appendix 2: SEIPS 2.0 Configural Work System Diagram Example

Process: Determining what to tell a family about potentially inappropriate hospital care that appears to have caused serious harm.



Active agents: Risk manager, treating physician, consulting physician, medical director, unit manager, Chief Nurse Executive, Chief Operating Officer, medical professional liability insurance claims representative

Performance is shaped most strongly by a combination of:

Persons Factors

- P1: The professionals' understanding of the event, prognosis, and potential liability
- P2: The family's perceived understanding of the situation and their expectations
- P3: The desires of the involved clinicians, managers, and executives to protect themselves and others
- P4: Stakeholders' perceptions of what effect the position they take will have on their relationships with others
- P5: Willingness to risk the potential consequences of disclosing malpractice
- P6: Personal 'bandwidth' to sustain investigation and ongoing communication with family

Task Factors

- T1: Explaining what is known and not known about the event, patient's prognosis, and family expectations
- T2: Advocating and negotiating
- T3: Forecasting potential outcomes of various courses of action

Information and Communication Tools Factors

- To1: Accuracy and completeness of investigation file, event analysis, correspondence
- To2: Effects of using technology (e.g., videoconferencing software) to mediate communication

Organization Factors

- O1: Local norms related to disclosure and communication
- **O2**: Risk manager workload

External Environment Factors

- **EE1:** Tort system, regulatory regime, medical board and NPDB reporting requirements
- **EE2**: Relations of race/ethnicity, culture, sex, gender, age, and deference to medical authority

Performance is more weakly influenced by numerous additional factors, such as whether the organization has a punitive or a fair and just organizational culture at various levels or whether other health systems within the same market have CRPs.