



Literature Supporting Communication and Resolution programs

CAI welcomes feedback about how this compendium can be improved

Please e-mail thecai@uw.edu with suggestions

*Note: this compendium reflects selected literature and is
not an exhaustive list of every study done on this topic.*

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Literature supporting CRPs

Patients want post-event communication

- Patients want disclosure of errors, to know what happened, why, what will be done about the consequences of the event, and what will be done to prevent it from happening again
 - Gallagher, Thomas H., Amy D. Waterman, Alison G. Ebers, Victoria J. Fraser, and Wendy Levinson. "Patients' and Physicians' Attitudes Regarding the Disclosure of Medical Errors." *JAMA: The Journal of the American Medical Association* 289, no. 8 (February 26, 2003): 1001–7.
- Patients and the public support disclosure
 - Mazor, Kathleen M., Steven R. Simon, and Jerry H. Gurwitz. "Communicating with Patients about Medical Errors: A Review of the Literature." *Archives of Internal Medicine* 164, no. 15 (August 9, 2004): 1690–97. <https://doi.org/10.1001/archinte.164.15.1690>.
- Many hospitalized or recently discharged patients believe they've experienced a breakdown in their care, and many perceive harm as a result, but many don't feel comfortable speaking up
 - Fisher, Kimberly, Kelly Smith, Thomas Gallagher, Laura Burns, Crystal Morales, and Kathleen Mazor. "We Want to Know: Eliciting Hospitalized Patients' Perspectives on Breakdowns in Care." *Journal of Hospital Medicine* 12, no. 8 (2017): 603–9. <https://doi.org/10.12788/jhm.2783>.
 - Fisher, Kimberly A., Kelly M. Smith, Thomas H. Gallagher, Jim C. Huang, James C. Borton, and Kathleen M. Mazor. "We Want to Know: Patient Comfort Speaking up about Breakdowns in Care and Patient Experience." *BMJ Qual Saf*, September 29, 2018, bmjqs-2018-008159. <https://doi.org/10.1136/bmjqs-2018-008159>.
- Similar findings are observed among patients with cancer
 - Mazor, Kathleen M., Douglas W. Roblin, Sarah M. Greene, Celeste A. Lemay, Cassandra L. Firreno, Josephine Calvi, Carolyn D. Prouty, Kathryn Horner, and Thomas H. Gallagher. "Toward Patient-Centered Cancer Care: Patient Perceptions of Problematic Events, Impact, and Response." *Journal of Clinical Oncology: Official Journal of the American Society of Clinical Oncology* 30, no. 15 (May 20, 2012): 1784–90. <https://doi.org/10.1200/JCO.2011.38.1384>.
- In pediatrics, it's more complex and case-by-case
 - Koller, Donna, and Sherry Espin. "Views of Children, Parents, and Health-Care Providers on Pediatric Disclosure of Medical Errors." *Journal of Child Health Care: For Professionals Working with Children in the Hospital and Community* 22, no. 4 (December 2018): 577–90. <https://doi.org/10.1177/1367493518765220>.

Health care professionals generally agree with at least some post-event communication, but benefit from training & support

- Physicians agree with disclosure, but without training are often unsure about how to do so
 - Gallagher, Thomas H., Amy D. Waterman, Alison G. Ebers, Victoria J. Fraser, and Wendy Levinson. "Patients' and Physicians' Attitudes Regarding the Disclosure of Medical Errors." *JAMA: The Journal of the American Medical Association* 289, no. 8 (February 26, 2003): 1001–7.

- White, Andrew A, Sigall K Bell, Melissa J Krauss, Jane Garbutt, W Claiborne Dunagan, Victoria J Fraser, Wendy Levinson, Eric B Larson, and Thomas H Gallagher. “How Trainees Would Disclose Medical Errors: Educational Implications for Training Programmes.” *Medical Education* 45, no. 4 (April 2011): 372–80. <https://doi.org/10.1111/j.1365-2923.2010.03875.x>.
- Physicians support disclosure, but often do not do so
 - Mazor, Kathleen M., Steven R. Simon, and Jerry H. Gurwitz. “Communicating with Patients about Medical Errors: A Review of the Literature.” *Archives of Internal Medicine* 164, no. 15 (August 9, 2004): 1690–97. <https://doi.org/10.1001/archinte.164.15.1690>.
- Talking with patients/families about other clinicians’ errors is particularly complex
 - Gallagher, Thomas H., Michelle M. Mello, Wendy Levinson, Matthew K. Wynia, Ajit K. Sachdeva, Lois Snyder Sulmasy, Robert D. Truog, et al. “Talking with Patients about Other Clinicians’ Errors.” *New England Journal of Medicine* 369, no. 18 (2013): 1752–57. <https://doi.org/10.1056/NEJMs1303119>.
- Nurses routinely disclose no or low harm events, but face challenges in interprofessional communication around more serious or team errors and disclosures
 - Shannon, Sarah E., Mary Beth Foglia, Mary Hardy, and Thomas H. Gallagher. “Disclosing Errors to Patients: Perspectives of Registered Nurses.” *Joint Commission Journal on Quality and Patient Safety* 35, no. 1 (January 2009): 5–12. [https://doi.org/10.1016/s1553-7250\(09\)35002-3](https://doi.org/10.1016/s1553-7250(09)35002-3).
 - Wagner, Laura M., Kimberley Harkness, Philip C. Hébert, and Thomas H. Gallagher. “Nurses’ Perceptions of Error Reporting and Disclosure in Nursing Homes.” *Journal of Nursing Care Quality* 27, no. 1 (2012): 63–69. <https://doi.org/10.1097/NCQ.0b013e318232c0bc>.
- Multi-disciplinary training is helpful but is best as part of a comprehensive program with opportunities for practice
 - White, Andrew, Douglas Brock, Patricia McCotter, Sarah Shannon, and Thomas Gallagher. “Implementing an Error Disclosure Coaching Model: A Multicenter Case Study.” *Journal of Healthcare Risk Management* 36 (January 1, 2017): 34–45. <https://doi.org/10.1002/jhrm.21260>.
- Training & experience are associated with attitudes supporting greater transparency with peers & institutions
 - Bell, Sigall K., Andrew A. White, Jean C. Yi, Joyce P. Yi-Frazier, and Thomas H. Gallagher. “Transparency When Things Go Wrong: Physician Attitudes About Reporting Medical Errors to Patients, Peers, and Institutions.” *Journal of Patient Safety* 13, no. 4 (December 2017): 243–48. <https://doi.org/10.1097/PTS.0000000000000153>.
- In pediatrics, it’s more complex and case-by-case
 - Koller, Donna, and Sherry Espin. “Views of Children, Parents, and Health-Care Providers on Pediatric Disclosure of Medical Errors.” *Journal of Child Health Care: For Professionals Working with Children in the Hospital and Community* 22, no. 4 (December 2018): 577–90. <https://doi.org/10.1177/1367493518765220>.

Consequences of harm events incl. physical & non-physical impacts, can be long-term

- Patients/families reporting a harmful event in their care describe psychological, social/behavioral, physical, and financial impacts, many of which can be long-term

- Ottosen, Madelene J., Emily W. Sedlock, Aitebureme O. Aigbe, Sigall K. Bell, Thomas H. Gallagher, and Eric J. Thomas. “Long-Term Impacts Faced by Patients and Families After Harmful Healthcare Events.” *Journal of Patient Safety*, January 17, 2018. <https://doi.org/10.1097/PTS.0000000000000451>.

CRPs promote practices that can improve pt/fam outcomes & safety

- Emotional safety is patient safety
 - Lyndon, Audrey, Dána-Ain Davis, Anjana E. Sharma, and Karen A. Scott. “Emotional Safety Is Patient Safety.” *BMJ Quality & Safety* 32, no. 7 (July 2023): 369–72. <https://doi.org/10.1136/bmjqs-2022-015573>.
- CRPs promote communication and accountability, both of which are foundational for patient/family trust
 - Brenner, Michael J., Gerald B. Hickson, Cynda Hylton Rushton, Mark E. P. Prince, Carol R. Bradford, and Richard C. Boothman. “Honesty and Transparency, Indispensable to the Clinical Mission-Part II: How Communication and Resolution Programs Promote Patient Safety and Trust.” *Otolaryngologic Clinics of North America* 55, no. 1 (February 2022): 63–82. <https://doi.org/10.1016/j.otc.2021.07.018>.
- Asking about possible care breakdowns in detail, and offering a full apology when breakdowns are reported substantially increases patients' willingness to recommend the hospital
 - Fisher, Kimberly A., Thomas H. Gallagher, Kelly M. Smith, Yanhua Zhou, Sybil Crawford, Azraa Amroze, and Kathleen M. Mazor. “Communicating with Patients about Breakdowns in Care: A National Randomised Vignette-Based Survey.” *BMJ Quality & Safety* 29, no. 4 (April 2020): 313–19. <https://doi.org/10.1136/bmjqs-2019-009712>.
- Open communication (as compared with closed communication) is associated with less sadness, depression, abandonment/betrayal, and the avoidance of doctors and facilities involved in the error:
 - Prentice, Julia C., Sigall K. Bell, Eric J. Thomas, Eric C. Schneider, Saul N. Weingart, Joel S. Weissman, and Mark J. Schlesinger. “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, no. 11 (November 2020): 883-94. <https://doi.org/10.1136/bmjqs-2019-010367>.
- Organizational responses aligned with CRP best practice guidelines are associated with a lower risk of prolonged emotional impact after harm events:
 - Sokol-Hessner et al., *in review*

CRPs are aligned with creating joy & meaning for health care professionals

- Develop & embody core values that include respect, transparency, truth telling, safety, accountability; create full transparency for harm events, focus on learning for improvement and preventing harm; commitment to high-reliability, “provide training and coaching in disclosure and apology after adverse events”, establish peer support programs for professionals
 - National Patient Safety Foundation. “Through the Eyes of the Workforce: Creating Joy, Meaning, and Safer Health Care.” Lucian Leape Institute: Report of the Roundtable on Joy and Meaning in Work and Workforce Safety, 2013.

- Physicians that learn and adapt positively after making harmful mistakes are more likely to have disclosed the error.
 - Plews-Ogan, Margaret, Natalie May, Justine Owens, Monika Ardel, Jo Shapiro, and Sigall K. Bell. “Wisdom in Medicine: What Helps Physicians After a Medical Error?” *Academic Medicine: Journal of the Association of American Medical Colleges* 91, no. 2 (February 2016): 233–41. <https://doi.org/10.1097/ACM.0000000000000886>.

Patient/family engagement

- In event analysis
 - Etchegaray, Jason M., Madelene J. Ottosen, Landrus Burrell, William M. Sage, Sigall K. Bell, Thomas H. Gallagher, and Eric J. Thomas. “Structuring Patient And Family Involvement In Medical Error Event Disclosure And Analysis.” *Health Affairs* 33, no. 1 (January 1, 2014): 46–52. <https://doi.org/10.1377/hlthaff.2013.0831>.
 - National Patient Safety Foundation. “RCA2: Improving Root Cause Analyses and Actions to Prevent Harm.” Boston, MA, 2015. <http://www.ih.org/resources/Pages/Tools/RCA2-Improving-Root-Cause-Analyses-and-Actions-to-Prevent-Harm.aspx>.

Effects on malpractice/medicolegal experiences

- Patients pursue litigation to understand what happened and why, to ensure that similar incidents don't happen again, to obtain compensation for losses, pain, suffering or for care expenses, and to promote accountability
 - Vincent, C., M. Young, and A. Phillips. “Why Do People Sue Doctors? A Study of Patients and Relatives Taking Legal Action.” *Lancet* (London, England) 343, no. 8913 (June 25, 1994): 1609–13. [https://doi.org/10.1016/s0140-6736\(94\)93062-7](https://doi.org/10.1016/s0140-6736(94)93062-7).
- Patient experiences of poor clinician-patient communication are a significant motivator for patients seeking legal counsel
 - Spector, Richard A. “Plaintiff's Attorneys Share Perspectives on Patient Communication.” *Journal of Healthcare Risk Management: The Journal of the American Society for Healthcare Risk Management* 29, no. 3 (2010): 29–33. <https://doi.org/10.1002/jhrm.20021>.
- VA Medical Center in Lexington, KY, no significant increases in claims/ costs:
 - Kraman, S. S., and G. Hamm. “Risk Management: Extreme Honesty May Be the Best Policy.” *Annals of Internal Medicine* 131, no. 12 (December 21, 1999): 963–67. <https://doi.org/10.7326/0003-4819-131-12-199912210-00010>.
- University of Michigan Health System, over 12 year period, decr # of claims & lawsuits, decreased time from claim to resolution, decr. total liability costs, patient compensation, and non-compensation-related legal costs
 - Kachalia, Allen, Samuel R. Kaufman, Richard Boothman, Susan Anderson, Kathleen Welch, Sanjay Saint, and Mary A. M. Rogers. “Liability Claims and Costs before and after Implementation of a Medical Error Disclosure Program.” *Annals of Internal Medicine* 153, no. 4 (August 17, 2010): 213–21. <https://doi.org/10.7326/0003-4819-153-4-201008170-00002>.
- University of Michigan Health System, focus on GI-related claims & costs, found decr incidence of claims, decr time to claim resolution, and decr mean total liability per claim.
 - Adams, Megan A., B. Joseph Elmunzer, and James M. Scheiman. “Effect of a Health System's Medical Error Disclosure Program on Gastroenterology-Related

- Claims Rates and Costs.” *The American Journal of Gastroenterology* 109, no. 4 (April 2014): 460–64. <https://doi.org/10.1038/ajg.2013.375>.
- University of Illinois Hospital and Health Sciences System, over 12 years, showed decr. # of claims, decr. legal fees & costs, costs per claim, settlement amounts, and self-insurance costs
 - Lambert, Bruce L., Nichola M. Centomani, Kelly M. Smith, Lorens A. Helmchen, Dulal K. Bhaumik, Yash J. Jalundhwala, and Timothy B. McDonald. “The ‘Seven Pillars’ Response to Patient Safety Incidents: Effects on Medical Liability Processes and Outcomes.” *Health Services Research* 51 Suppl 3, no. Suppl 3 (December 2016): 2491–2515. <https://doi.org/10.1111/1475-6773.12548>.
 - Erlanger Health System, Tennessee, over 11 years, showed decrease in # of new claims, defense costs, settlement costs, total liability costs, and time to resolution of claims
 - LeCraw, Florence R, Daniel Montanera, Joy P Jackson, Janice C Keys, Dale C Hetzler, and Thomas A Mroz. “Changes in Liability Claims, Costs, and Resolution Times Following the Introduction of a Communication-and-Resolution Program in Tennessee.” *Journal of Patient Safety and Risk Management* 23, no. 1 (February 1, 2018): 13–18. <https://doi.org/10.1177/1356262217751808>.
 - Five acute care hospitals in NYC for 22 months after CRP implementation, didn’t clearly increase claims (but also not as rigorous in comparing pre/post as other studies)
 - Mello, Michelle M., Yelena Greenberg, Susan K. Senecal, and Janet S. Cohn. “Case Outcomes in a Communication-and-Resolution Program in New York Hospitals.” *Health Services Research* 51 Suppl 3, no. Suppl 3 (December 2016): 2583–99. <https://doi.org/10.1111/1475-6773.12594>.
 - Beth Israel Deaconess Medical Center, Baystate Medical Center & two community hospitals in Massachusetts, over ~4 years, showed improved trends in rate of new claims & legal defense costs at some hospitals, but no trends in other outcomes (time to resolution, other costs), and no worsening trends.
 - Kachalia, Allen, Kenneth Sands, Melinda Van Niel, Suzanne Dodson, Stephanie Roche, Victor Novack, Maayan Yitshak-Sade, et al. “Effects Of A Communication-And-Resolution Program On Hospitals’ Malpractice Claims And Costs.” *Health Affairs (Project Hope)* 37, no. 11 (2018): 1836–44. <https://doi.org/10.1377/hlthaff.2018.0720>.

Effects on culture of safety

- Event reporting doubled at Univ. of Illinois Hospital & Health Sciences System, over 12 years:
 - Lambert, Bruce L., Nichola M. Centomani, Kelly M. Smith, Lorens A. Helmchen, Dulal K. Bhaumik, Yash J. Jalundhwala, and Timothy B. McDonald. “The ‘Seven Pillars’ Response to Patient Safety Incidents: Effects on Medical Liability Processes and Outcomes.” *Health Services Research* 51 Suppl 3, no. Suppl 3 (December 2016): 2491–2515. <https://doi.org/10.1111/1475-6773.12548>.
- Measures of error disclosure culture and the effects of disclosure on trust are predictive of professionals’ intent to disclose errors and are improved by prior education about disclosure
 - Etchegaray, Jason M., Thomas H. Gallagher, Sigall K. Bell, Ben Dunlap, and Eric J. Thomas. “Error Disclosure: A New Domain for Safety Culture Assessment.” *BMJ Quality & Safety* 21, no. 7 (July 2012): 594–99. <https://doi.org/10.1136/bmjqs-2011-000530>.

- Theoretical benefits overall
 - Gallagher, Thomas H., Michelle M. Mello, William M. Sage, Sigall K. Bell, Timothy B. McDonald, and Eric J. Thomas. “Can Communication-And-Resolution Programs Achieve Their Potential? Five Key Questions.” *Health Affairs (Project Hope)* 37, no. 11 (November 2018): 1845–52. <https://doi.org/10.1377/hlthaff.2018.0727>.
 - National Patient Safety Foundation. “Through the Eyes of the Workforce: Creating Joy, Meaning, and Safer Health Care.” Lucian Leape Institute: Report of the Roundtable on Joy and Meaning in Work and Workforce Safety, 2013.
- Open communication between patients and families and healthcare teams, and error notification and learning, have been identified as factors that drive safety culture
 - Carvalho, Rhanna Emanuela Fontenele Lima de, David W. Bates, Ania Syrowatka, Italo Almeida, Luana Sousa, Jaira Goncalves, Natalia Oliveira, Milena Gama, and Ana Paula Alencar. “Factors Determining Safety Culture in Hospitals: A Scoping Review.” *BMJ Open Quality* 12, no. 4 (October 2023): e002310. <https://doi.org/10.1136/bmjog-2023-002310>.

Implementation can be sustained

- 97 semi-structured interviews with leaders, hospital employees, and patients at 9 VA hospitals revealing key areas that need to be addressed during CRP implementation
 - Maguire, Elizabeth M., Barbara G. Bokhour, Todd H. Wagner, Steven M. Asch, Allen L. Gifford, Thomas H. Gallagher, Janet M. Durfee, Richard A. Martinello, and A. Rani Elwy. “Evaluating the Implementation of a National Disclosure Policy for Large-Scale Adverse Events in an Integrated Health Care System: Identification of Gaps and Successes.” *BMC Health Services Research* 16, no. 1 (November 11, 2016): 648. <https://doi.org/10.1186/s12913-016-1903-7>.
- Case outcomes of CRPs at 4 hospitals in MA demonstrating good adherence to the program protocol
 - Mello, Michelle M., Allen Kachalia, Stephanie Roche, Melinda Van Niel, Lisa Buchsbaum, Suzanne Dodson, Patricia Folcarelli, Evan M. Benjamin, and Kenneth E. Sands. “Outcomes In Two Massachusetts Hospital Systems Give Reason For Optimism About Communication-And-Resolution Programs.” *Health Affairs (Project Hope)* 36, no. 10 (01 2017): 1795–1803. <https://doi.org/10.1377/hlthaff.2017.0320>.
- Description of strategies supporting sustained implementation in an integrated regional healthcare system with 10 hospitals, 250 ambulatory care delivery sites, and 20 diversified businesses in the mid-Atlantic region of the United States
 - Smith, Kelly M, Larry L Smith, John C (Jack) Gentry, and David B Mayer. “Lessons Learned from Implementing a Principled Approach to Resolution Following Patient Harm.” *Journal of Patient Safety and Risk Management* 24, no. 2 (April 1, 2019): 83–89. <https://doi.org/10.1177/2516043518813814>.
- Analysis of key informant interviews and notes from 89 teleconferences between hospitals’ CRP implementation teams and study staff revealed numerous factors promoting success
 - Mello, Michelle M., Stephanie Roche, Yelena Greenberg, Patricia Henry Folcarelli, Melinda Biocchi Van Niel, and Allen Kachalia. “Ensuring Successful Implementation of Communication-and-Resolution Programmes.” *BMJ Quality & Safety*, January 20, 2020. <https://doi.org/10.1136/bmjqs-2019-010296>.

- Analysis of methods associated with the successes, failures, and obstacles faced by nine heterogeneous CRP implementation teams
 - LeCraw, Florence R, Sally C Stearns, and Michael J McCoy. “How U.S. Teams Advanced Communication and Resolution Program Adoption at Local, State and National Levels.” *Journal of Patient Safety and Risk Management* 26, no. 1 (February 1, 2021): 34–40. <https://doi.org/10.1177/2516043520973818>.
- Description of the keys to successful CRP implementation (based on one organization’s experience)
 - Pearlman, Stephen, Michele Campbell, and Peter Lodato. “Successful System Implementation of a Communication and Resolution Program.” *Medical Research Archives* 9, no. 10 (October 28, 2021). <https://doi.org/10.18103/mra.v9i10.2573>.

Challenges and areas for future work

Terminology must evolve

- “Second victim”
 - Clarkson, Melissa D., Helen Haskell, Carole Hemmelgarn, and Patty J. Skolnik. “Abandon the Term ‘Second Victim.’” *BMJ* 364 (March 27, 2019): l1233. <https://doi.org/10.1136/bmj.l1233>.
- “Disclosure”, “Resolution”
 - Gallagher, Thomas H., Carole Hemmelgarn, and Evan M. Benjamin. “Disclosing Medical Errors: Prioritising the Needs of Patients and Families.” *BMJ Quality & Safety* 32, no. 10 (October 2023): 557–61. <https://doi.org/10.1136/bmjqs-2022-015880>.

Challenges with comprehensive & highly-reliable CRP implementation

- Expert perspectives on key challenges to CRPs’ success
 - Gallagher, Thomas H., Michelle M. Mello, William M. Sage, Sigall K. Bell, Timothy B. McDonald, and Eric J. Thomas. “Can Communication-And-Resolution Programs Achieve Their Potential? Five Key Questions.” *Health Affairs (Project Hope)* 37, no. 11 (November 2018): 1845–52. <https://doi.org/10.1377/hlthaff.2018.0727>.
- Expert perspectives on strategies for effective CRP implementation
 - Gallagher, Thomas H., Richard C. Boothman, Leilani Schweitzer, and Evan M. Benjamin. “Making Communication and Resolution Programmes Mission Critical in Healthcare Organisations.” *BMJ Quality & Safety*, May 5, 2020. <https://doi.org/10.1136/bmjqs-2020-010855>.
- Expert perspective on the state of the CRP field and key implementation challenges
 - Gallagher, Thomas H., and Allen Kachalia. “Responding to Medical Errors - Implementing the Modern Ethical Paradigm.” *The New England Journal of Medicine*, January 13, 2024. <https://doi.org/10.1056/NEJMp2309554>.

Gaps in implementation fidelity

- Five acute care hospitals in NYC, esp. inconsistent around offering compensation
 - Mello, Michelle M., Yelena Greenberg, Susan K. Senecal, and Janet S. Cohn. “Case Outcomes in a Communication-and-Resolution Program in New York Hospitals.” *Health Services Research* 51 Suppl 3, no. Suppl 3 (December 2016): 2583–99. <https://doi.org/10.1111/1475-6773.12594>.
- Six hospitals & clinics & an insurer in Washington state, challenges with passive/unengaged leaders, physicians, and insurer, as well as coordination & workload problems, and distrust
 - Mello, Michelle M., Sarah J. Armstrong, Yelena Greenberg, Patricia I. McCotter, and Thomas H. Gallagher. “Challenges of Implementing a Communication-and-Resolution Program Where Multiple Organizations Must Cooperate.” *Health Services Research* 51 Suppl 3 (December 2016): 2550–68. <https://doi.org/10.1111/1475-6773.12580>.

Equity & justice

- Responding after harm is particularly challenging with historically marginalized patients because of fragmentation of care, lack of standardized protocols, and patient mistrust
 - Olazo, Kristan, Thomas H. Gallagher, and Urmimala Sarkar. “Experiences and Perceptions of Healthcare Stakeholders in Disclosing Errors and Adverse Events to Historically Marginalized Patients.” *Journal of Patient Safety* 19, no. 8 (December 1, 2023): 547–52. <https://doi.org/10.1097/PTS.0000000000001173>.
- Attorney involvement when patients experience harm or compensation is being discussed may be important
 - Moore, Jennifer, Marie Bismark, and Michelle M. Mello. “Patients’ Experiences With Communication-and-Resolution Programs After Medical Injury.” *JAMA Internal Medicine* 177, no. 11 (01 2017): 1595–1603. <https://doi.org/10.1001/jamainternmed.2017.4002>.
 - McDonald, Timothy B., Melinda Van Niel, Heather Gocke, Deanna Tarnow, Martin Hatlie, and Thomas H. Gallagher. “Implementing Communication and Resolution Programs: Lessons Learned from the First 200 Hospitals.” *Journal of Patient Safety and Risk Management*, April 11, 2018. <https://doi.org/10.1177/2516043518763451>.
- Historically, ~1/3 of malpractice litigation expenditures do not go to patients/families (for every dollar of compensation, 54 cents goes to lawyers, experts, and courts), and 27% of claims involving an injury due to error do not result in compensation.
 - Studdert, David M., Michelle M. Mello, Atul A. Gawande, Tejal K. Gandhi, Allen Kachalia, Catherine Yoon, Ann Louise Puopolo, and Troyen A. Brennan. “Claims, Errors, and Compensation Payments in Medical Malpractice Litigation.” *The New England Journal of Medicine* 354, no. 19 (May 11, 2006): 2024–33. <https://doi.org/10.1056/NEJMsa054479>.
- Key components of fair & objective processes for redress and reconciliation following a life-changing patient safety event from the perspectives of the individuals experiencing the event and their families, include: transparency, person-centered, trustworthy, and restorative justice
 - Shaw, Liz, Hassanat M. Lawal, Simon Briscoe, Ruth Garside, Jo Thompson Coon, Morwenna Rogers, and G. J. Melendez-Torres. “Patient, Carer and Family Experiences of Seeking Redress and Reconciliation Following a Life-Changing Event: Systematic Review of Qualitative Evidence.” *Health Expectations: An International Journal of Public Participation in Health Care and Health Policy* 26, no. 6 (December 2023): 2127–50. <https://doi.org/10.1111/hex.13820>.

Patient/families experiencing CRPs may not reliably learn about safety improvement efforts

- 24 of 30 patients/families reported receiving no information about safety improvement efforts
 - Moore, Jennifer, Marie Bismark, and Michelle M. Mello. “Patients’ Experiences With Communication-and-Resolution Programs After Medical Injury.” *JAMA Internal Medicine* 177, no. 11 (01 2017): 1595–1603. <https://doi.org/10.1001/jamainternmed.2017.4002>.

Patient/families experiencing CRPs may be dissatisfied with compensation offers

- 17 of 30 patients/family members reported that offers of compensation were not sufficiently proactive
 - Moore, Jennifer, Marie Bismark, and Michelle M. Mello. “Patients’ Experiences With Communication-and-Resolution Programs After Medical Injury.” *JAMA Internal Medicine* 177, no. 11 (01 2017): 1595–1603. <https://doi.org/10.1001/jamainternmed.2017.4002>.

Physician concerns about NPDB and State Licensing Boards need more exploration

- Expert perspectives on implementing CRPs, including key challenges
 - McDonald, Timothy B., Melinda Van Niel, Heather Gocke, Deanna Tarnow, Martin Hatlie, and Thomas H. Gallagher. “Implementing Communication and Resolution Programs: Lessons Learned from the First 200 Hospitals.” *Journal of Patient Safety and Risk Management*, April 11, 2018. <https://doi.org/10.1177/2516043518763451>.
- Survey of American state medical boards about how they handle cases that used a CRP approach
 - Wojcieszak, Doug. “How Will State Medical Boards Handle Cases Involving Disclosure and Apology for Medical Errors?” *Journal of Patient Safety and Risk Management* 27, no. 1 (February 1, 2022): 15–20. <https://doi.org/10.1177/25160435211070096>.

Optimizing laws, regulations, and policies

- Effect of apology laws is unclear
 - Fields, Adam C., Michelle M. Mello, and Allen Kachalia. “Apology Laws and Malpractice Liability: What Have We Learned?” *BMJ Quality & Safety* 30, no. 1 (January 2021): 64–67. <https://doi.org/10.1136/bmjqs-2020-010955>.
- There may be opportunities to improve laws and regulations that support CRPs
 - Sage, William M., Thomas H. Gallagher, Sarah Armstrong, Janet S. Cohn, Timothy McDonald, Jane Gale, Alan C. Woodward, and Michelle M. Mello. “How Policy Makers Can Smooth the Way for Communication-and- Resolution Programs.” *Health Affairs (Project Hope)* 33, no. 1 (January 2014): 11–19. <https://doi.org/10.1377/hlthaff.2013.0930>.
 - Kass, Joseph S., and Rachel V. Rose. “Medical Malpractice Reform--Historical Approaches, Alternative Models, and Communication and Resolution Programs.” *AMA Journal of Ethics* 18, no. 3 (March 1, 2016): 299–310. <https://doi.org/10.1001/journalofethics.2016.18.3.pfor6-1603>.
 - Gallagher, Thomas H., Michael L. Farrell, Hannah Karson, Sarah J. Armstrong, John T. Maldon, Michelle M. Mello, and Bruce F. Cullen. “Collaboration with Regulators to Support Quality and Accountability Following Medical Errors: The Communication and Resolution Program Certification Pilot.” *Health Services Research* 51, no. S3 (2016): 2569–82. <https://doi.org/10.1111/1475-6773.12557>.