



The Culture of Patient Safety and its Linkage to Medical error reporting

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Abstract

Patient safety culture (PSC) has become a key concept in healthcare quality improvement that summarizes collective organizational values, beliefs, and norms underpinning the preference of safety over blame. PSC also affects the perception of risk, the discussion of worries and reactions to mistakes, among healthcare professionals. A growing body of literature suggests that PSC is an important indicator of the quality and quantity of medical errors reporting in diverse clinical settings. Underreporting of errors is still widespread despite the general knowledge regarding it, especially in low- and middle-income countries since hierarchical norms, available resources, and fear of harsh penalties tend to suppress free speech (Chegini et al., 2020). The study presented, helps to analyze the interrelation between PSC and medical error reporting, under condition of which leadership, communication, organizational learning, and systemic conditions determine the reporting behavior. It both synthesizes empirical evidence and questions the processes by which a healthy PSC can help identify and report on errors and reduce negative health outcomes in patients. Finally, the paper will argue that procedural changes are not enough to fix medical error reporting, but it requires a more radical cultural change based on systems thinking and the principles of organizational learning.

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Introduction

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Theoretical Base of Patient Safety Culture and Medical error Reporting.

The conceptualized concept of patient safety culture (PSC) must be very rigorous as the definition of PSC determines how organizations define safety, assess reporting system, and establish corrective measures.

The multidisciplinary nature of safety concerns and behavioral norms in quality denotes the concepts of corporate or organizational commitment to prioritize safety in the conduct of organizational leadership and structural practices, which favor diminishing risks (Kaya et al., 2023). These norms include being open and discussing mistakes, collective responsibility to avoid harm, willingness to learn through mistakes, and systemic improvement over blame. Notably, PSC is a multilayered construct functioning on the individual, team and organizational levels. On the individual level, it is contented with beliefs, confidence and psychological safety; at the team level, it is manifested in communication, cooperation and mutual trust and at the organizational level, it is evidenced by the behavior of leaders, resource distribution, and institutional learning systems.

The reporting of medical errors is a voluntary or obligatory behavior of PSC that implies noting adverse events, near misses, and unsafe situations (Sameera et al., 2021). It indicates how the people feel about the security of the environment, whether they feel that the environment is just and enabled to respond to the information given to it. Reporting rates will increase when staff members are psychologically safe, when a manager or a leader supports them, and reports them that their reporting will bring about meaningful change. On the other hand, reporting reduces when employees are threatened of punishment, stigmatization, a damaged reputation, or feel that reporting is not going to make things better. The empirical data indicates that the process of reporting behavior is influenced more by cultural and psychological processes rather than by the procedural demands. Health workers often fail to report the errors that occur because they fear the punishments, confusion in report procedures, time, and a lack of trust in the possibility of the organizational change. The study by Chegini et al. (2020) demonstrated that the intentions to report an error are strongly related to the leadership behavior, which entails openness, supportiveness, and fairness, therefore, supporting the significance of the close relationship between culture and behavior in reporting errors. A high correlation between PSC and the attitudes of nurses regarding reporting ($r = 0.838$) that Kusumawati et al. (2019) also identified, demonstrates the significant influence of shared norms, expectations, and cultural beliefs on reporting intentions. In most cases, PSC is not based on the attitude or perception, but rather on a safety logic that is employed in an organization, specifically, on whether the errors represent system failures or personal failures. Hospitals that take a systems based approach promote reporting, transparency, and learning throughout organizations, and those with blame centred models discourage disclosure and prevent improvement.

Error Reporting, Managerial Support, and Leadership.

Leadership behaviours are a landmark of patient safety culture (PSC) since leaders facilitate expectations, exhibiting what is acceptable, and they have a direct impact on helping staff to believe that reporting errors is safe, endorsed and helpful. Regularly, the studies on this topic carried out across the globe show that supportive leadership substantially raises the chances that employees will disclose mistakes (Chegini et al., 2020; Nafe et al., 2025). Senior executives who practice coaching, fostering open communication, offer constructive feedback, and place significant importance on learning at the system level will create an environment where employees feel valued and mentally safe to report mistakes or close calls. With such leadership, it is an indication that reporting is a contribution into organizational improvement as opposed to being a blame or punishment instigate. The focus on managerial support as building block of reporting behavior is supported by empirical evidence. Cui et al. (2025) showed that managerial support on patient safety was highly associated with their reduction in the number of medication errors ($OR=0.755$) and their increase in the number of incidents ($OR=0.706$). Similarly, Kaya et al. (2023) observed that patient safety grades, teamwork, and improvement in the frequency of reporting were linked with the positive perception of hospital management. These results place leadership support among the most powerful dimensions of PSC that can be more effective than structural or policy-level interventions.

Nevertheless, the impact of leadership is not one-way and direct. According to Kaya et al. (2023), an unexpectedly high correlation found between higher job satisfaction and lower reporting, indicating that very satisfied employees do not want to report mistakes to maintain the social order or cause a tense working atmosphere. These subtleties help to emphasize that the charming work environment condition is not necessarily the one that is favorable to transparency; the leaders should address the matter of

reporting the errors intentionally and frequently, turning it into a constructive, and learning-oriented behavior. The role of leadership becomes even more complicated because of comparative scholarship. Labrague and Cayaban (2025) discovered that leaders who foster a just culture i.e. accountability but permissive balance are more likely to achieve higher reporting compared to their counterparts who use punitive and excessively permissive styles. Brennan and Drummond (2019), on the same note, state that to practically change culture, it is important that leaders emphasize exemplifying a culture of openness through acknowledging weaknesses of a system, seeking feedback, and responding to an error in a non-punitive way. In the absence of committed leadership that is witnessed with time, reporting efforts usually lack momentum and decay with time. On balance, in addition to a moderator of PSC, leadership is a key initiator of the enduring positive changes in reporting behavior, which influence how staff view their error, and feeling the power to do it. In this regard, if the top leadership supports error reporting culture it means that healthcare professionals will have the confidence to report the incident without expecting punishment from the top authority (Wawersik & Palaganas, 2022). The top management should encourage incidents reporting because it is through reporting that the management and the healthcare professionals can identify the mistake that resulted into the error and try to correct it in the future.

Mechanisms of Communication, Teamwork, and Feedback.

The desire of healthcare professionals to report an incident is directly influenced by communication and teamwork since reporting remains a communicative operation. A high likelihood of errors being reported by the healthcare workers is much more probable when there are open channels of communication, interprofessional relationship, and meaningful feedback loop in place. Nafe et al. (2025) discovered that the impact of communication and feedback on error prevention was the greatest predictors of safe nursing practices (0.229). Alsobou et al (2025) also displayed that learning error was most significantly linked to feedback and communication about errors ($r = -.401$). These observations reinforce the idea that reporting supports the improvement of reporting in situations whereby staff members are convinced that their reports will translate into positive changes. The same is true of teamwork climate. Kaya et al. (2023) noticed that positive teamwork climate minimizes the number of times to commit and notice mistakes, which could probably be explained by the all-effective teams being more proactive in communication and coordinating care and identifying risks even earlier. This is in line with previous results by Chi et al. (2019), who found that the cohesive groups bring about better patient outcomes when the teams share duties collectively. Communication problems are, however, indicative of latent structural problems. When the hierarchy of the hospital is high, junior employees are not encouraged to report the mistakes made by seniors (Okuyama et al., 2014). There are also cultural norms of certain areas like a high level of respect to authority that do not encourage upward communication or a fear of losing face. Reporting is further deterred by lingual disparities, insufficient interdisciplinary training and deficient feedback structures. On this aspect, advice should be backed with plausible feedback. Reporting also becomes absurd where employees make reports about mistakes but they never get to know whether results or something positive happened. Continuous feedback loops will increase trust, as this proves that reporting is part of real change.

Use of Technology, Reporting Tools and the System Design.

Incident-reporting systems architecture is central to incident-reporting behavior because the architecture should be easily available, easy to use, and deeply embedded into the standard clinical practice. Empirical studies show clearly that structural and technological interventions such as standardized reporting objects, portals and automatized checklists can significantly raise the reporting rates by reducing ambiguity and simplifying the documentation methods. Chance et al. (2024) discovered that such structured tools have the benefit of making reports complete and more accurate by directing staff through the required fields and minimizing the effect of subjective interpretation. Equally, Cui et al. (2025) have also discovered that the redesign of systems through the Failure Mode and Effects Analysis (FMEA) reduced the risk priority numbers with an increase in the frequency of reporting indicating that judicious system engineering is a direct reinforcement of the safety practices. Online reporting systems have also been found to reduce time stress; Vrbnjak et al. (2016) argued that electronic systems facilitate the creation of more coherent and timely records as compared to paper-based applications.

However, the use of technological solutions does not warrant significant improvements. Evans et al. (2022) established that the reporting processes in organizations that have a weakly implemented or improperly supported reporting system usually face a reporting decrease even where elaborate digital reporting instruments exist. The lack of training, interfaces and feedback mechanisms can undermine staff confidence and discourage their use. This highlights the fact that system sophistication does not know that secondary to usability, training, and easy integration in to clinical routines. An effective reporting tool should thus be user-friendly, workflow responsive, deliver instant satisfaction to the reporters, as well as channel the data into organizational learning processes, which are visible. In short, even as a strong system design is invaluable, it would need to be supported by conducive cultural, educational, and leadership systems to promote a healthy and well-participatory reporting culture.

Psychological Safety, Non-Punitive Response to Error and Reporting Behavior.

One of the most powerful predictors of medical error reporting engagement is psychological safety, the belief that one can report concerns, mistakes or near-misses without experiencing reprisal. The existing literature supports the abundance of references to fear of being blamed, punishments, or being exposed in other ways, as the most commonly mentioned finding of any clinical context (Chegini et al., 2020; Santas et al., 2020). Research shows that in the case where these employees feel that they work in the environment that is punitive, they are significantly less likely to report even the most severe incidences. As an example, Alsobou et al. (2025) discovered that the Patient Safety Culture (PSC) survey dimension of non-punitive response to error had the lowest results in Jordanian hospitals, the same topic was covered in other countries (Kusumawati et al., 2019; Santas et al., 2020). Moreover, the meta-analysis by Lee and Dahinten (2021) has proved that punitive or blame orientation climates are always associated with lower levels of reporting, which is why the connection between psychological climate and safety behaviors is strong.

However, despite the adoption of non-punitive policies in hospitals on a formal level, there is still a likelihood that the established cultural norms can be used to discourage reporting. Employees often dread indirect retribution, reputational injuries, poor performance reviews or peer disapproval. Such informal penalties may be even stronger deterrence than official discipline, as it is demonstrated in the case of Okuyama et al. (2014) who reported that the culture of covert blame is a common phenomenon existing below the official policy. These dynamics are also culturally specific; in numerous East Asian and Middle Eastern, hierarchical behavior, collectivism, and face-saving cultures reduce psychological safety due to the lack of open discussion about the error (Park et al., 2020). As a result, the promotion of psychological safety cannot be achieved solely through policy change; it will have to rely on observable leadership demonstrations, open communications, emotional encouragement, and protracted commitment to learning in an organization as opposed to blame.

Strong Patient Safety Culture: Outcomes, Reduction of Errors and Organizational Learning.

The patient safety culture (PSC) is not solely a strong patient safety culture that promotes incident reporting but also makes a direct contribution to the reduction of the harmful events through the continual organizational learning. It has been shown that when employees feel that they work in a friendly, open, and improvement-oriented atmosphere, they become more ready to report the close-call and mishaps thus helping organizations to list risks before they cause damage. Kaya et al. (2023) have shown that even increasing the PSC score by one point had a two-fold positive correlation with witnessed errors and a 4.22-fold negative correlation with reported incidence. These results are consistent with the memories of Cui et al. (2025), who found that managerial expectations, effective communications, and cross-staff collaboration had a significant impact on reducing adverse events in various units, which clearly demonstrates that cultural expectations may be translated into enhanced patient outcomes.

Wider evidence supports that advancements of a robust PSC correlate with the decrease of the number of medication errors, falls, pressure ulcers, hospital-acquired infections, and other avoidable complications (Labrague & Cayaban, 2025; Alshammari et al., 2020). Significantly, researchers warn that increased reporting should not be misunderstood as the loss of safety, but, in fact, more reporting is commonly an indicator of greater transparency and organizational learning. Chance et al. (2024) also reported that the

communication with reporting systems and the use of checklists minimized the presence of surgical complications and medication errors, which is the evidence of the synergistic impact of cultural and technical interventions. However, other researchers have also been concerned with the issue of reporting fatigue, where the perceived importance of reporting, without observable organizational response, in turn encourages discouragement and discourages further reporting by the staff (Brennan and Drummond, 2019). This is why it is critical that health care organizations make sure that action, through reporting, is accompanied by prompt feedback and transformation. Finally, a well-developed PSC fosters a space where mistakes are converted into chances to improve the system as a whole instead of becoming the cause of accusation, which reinforces the process of continual learning and increased patient safety.

Conclusion

Emerging research in different clinical environments indicates a clear, a consistent and positive correlation between the culture of patient safety and medical error reporting. Reporting behavior is shaped under the influence of leadership support, quality of communication, psychological safety, and efficient design of the system. The leadership should educate healthcare professionals on the benefits of error reporting both for the healthcare workers and the organization as a whole. Effective PSC cultures enable employees to detect, report and learn on their mistakes, which makes them less harmful to patients and improves their safety outcomes. However, PSC is a multi-dimensional concept, which requires long-term cultural, structural and psychological interventions. To advance the cause of enhancing safety, healthcare organizations need to make investments in the area of leadership development, support the principles of just culture, reinforce the feedback structure, and make sure that technological solutions are embedded into the comprehensive cultural initiatives. Medical institutions can make a significant advance in reporting errors and patient safety only with multifaceted sustainable initiatives.

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