

Learning from Patient Safety Events: A Retrospective Evaluation of a Lessons Learned Quality Improvement Initiative in Makkah Healthcare Cluster, Saudi Arabia

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Abstract

Background: Learning from patient safety events is essential to convert safety information into organizational knowledge that supports safer care. The Lessons Learned Project was developed within the Makkah Healthcare Cluster (MHC) to establish a structured approach to reviewing patient safety events and disseminating lessons through multidisciplinary educational activities. **Methods:** We conducted a retrospective descriptive evaluation of a quality improvement initiative implemented from September 2021 to May 2022. A multidisciplinary team reviewed selected patient safety events and translated them into educational messages delivered through lectures, videos, bilingual posters, active-learning activities, stakeholder engagement, and digital communication channels. A needs-assessment survey was completed by 34 healthcare workers. Program-evaluation data were summarized using frequencies and percentages. **Results:** The project established a 17-member multidisciplinary team that conducted 12 meetings and developed a standardized process for reviewing patient safety events. Educational outputs included a 13-day lecture series, three patient-safety videos, one introductory video, and 11 bilingual posters. Approximately 900 cumulative lecture attendances were recorded, while 317 registered participants were available for detailed evaluation. Among these participants, 57.7% worked within MHC, and 52.1% were nurses. Overall, 89.9% reported receiving the expected benefit from the lecture series, and 76.0% preferred future sessions after duty hours. Only 35.6% were willing to serve as speakers in a future cycle, and 13.9% were willing to share a patient safety experience through the project. **Conclusion:** The Lessons Learned initiative demonstrated the feasibility of a structured, multidisciplinary approach to translating patient safety events into organizational learning activities. The program achieved broad engagement and high perceived educational benefit; however, willingness to share personal patient safety experiences was limited. Future evaluations should incorporate objective measures of knowledge, reporting behavior, corrective-action implementation, and patient safety outcomes.

Keywords: Patient safety; Quality improvement; Organizational learning; Incident reporting; Knowledge sharing; Saudi Arabia.

Introduction

Patient safety is a fundamental component of healthcare quality and focuses on preventing and reducing risks, errors, and avoidable harm associated with healthcare delivery. As healthcare systems become increasingly complex, healthcare organizations are expected not only to identify adverse events and unsafe conditions but also to develop systematic mechanisms to learn from these events and prevent their recurrence (World Health Organization [WHO], 2023). The WHO Global Patient Safety Action Plan 2021–2030 further emphasizes the importance of transforming patient safety information into actionable knowledge and identifies incident reporting and learning systems as essential components of safer healthcare systems (WHO, 2021).

Learning from patient safety events is central to organizational learning. Healthcare organizations generate valuable information through incident reports, sentinel events, near misses, occurrence variance reports, unsafe conditions, and successful improvement experiences. However, these data are valuable only if they are systematically reviewed, translated into meaningful lessons, communicated to healthcare professionals, and used to guide improvement. Shared learning can disseminate safety knowledge across organizational boundaries and help prevent similar events from recurring in different settings (Sirio et al., 2005). Contemporary patient safety frameworks similarly emphasize that reporting should function as a mechanism for learning and improvement rather than as an isolated administrative activity (WHO, 2021).

The organizational culture surrounding patient safety is particularly important because healthcare professionals must feel able to report events and raise safety concerns for organizational learning to occur. Recent evidence has demonstrated associations between safety culture, communication openness, management support, and healthcare workers' willingness to speak up about patient safety concerns (Lee et al., 2023). Psychological safety has also been identified as an important organizational characteristic that supports healthcare professionals' ability to raise concerns, ask questions, and communicate potential threats to patient safety (Adair et al., 2022).

Within Saudi Arabia, strengthening patient safety culture and safety-event reporting has become increasingly important within the broader national healthcare transformation agenda. The Saudi Patient Safety Taxonomy provides a structured approach to classifying patient safety events (Ministry of Health, 2018). More recent national evidence shows continued opportunities to improve patient safety culture and reporting practices. A retrospective analysis of

national Saudi patient safety culture data from 2019 to 2022 identified organizational and management-related challenges affecting the development of a strong patient safety culture (Alaska & Alkutbe, 2023). Similarly, analysis of national data from healthcare professionals across Saudi hospitals demonstrated variability in reporting-culture indicators, highlighting the importance of strengthening organizational responses to errors and patient safety event reporting (Alkahf & Alonazi, 2024).

Recent Saudi evidence has further demonstrated associations between patient safety culture and incident-reporting behavior among healthcare professionals. Alsahli et al. (2024) emphasized the importance of management support, working conditions, and a supportive reporting environment. This evidence reinforces the need to move beyond collecting safety-event data toward mechanisms that facilitate organizational learning, feedback, communication, and the dissemination of lessons from patient safety experiences.

In response to this need, the Patient Safety and Risk Management Department within the Executive Administration of Quality and Patient Safety at Makkah Healthcare Cluster (MHC) developed the Lessons Learned Project during 2021–2022. The initiative was implemented within a healthcare network comprising 10 hospitals and 82 primary healthcare centers in the Makkah region. The project established a multidisciplinary mechanism to identify previous system failures, unsafe conditions, sentinel events, patient safety events, occurrence variance reports, and successful patient safety practices, and to translate these experiences into educational messages to support proactive risk prevention and organizational learning.

The initiative used multiple knowledge-sharing strategies, including lectures, educational videos, bilingual posters, active-learning activities, stakeholder engagement, official communication channels, and social media platforms. By integrating retrospective learning from safety events with structured dissemination and healthcare-worker engagement, the project sought to establish an organizational process to transform patient safety experiences into practical knowledge and share it across healthcare settings.

Therefore, this study aimed to describe the development, implementation, and retrospective evaluation of the Lessons Learned Project as a quality improvement initiative designed to strengthen patient safety learning and knowledge sharing across MHC. The study also evaluated healthcare professionals' engagement with the initiative, their perceived benefit from its educational activities, and

their willingness to participate in future patient safety knowledge-sharing activities.

Methods

Study Design

This study was a retrospective descriptive program evaluation of a previously implemented quality improvement initiative. It comprised two distinct phases. The first phase involved implementation of the Lessons Learned Quality Improvement Project from 5 September 2021 to 1 May 2022. The project established a structured process for identifying patient safety events, translating lessons derived from these events into practical knowledge, and disseminating that knowledge to healthcare professionals through multiple educational approaches. The second phase involved a retrospective evaluation of the completed project. The team reviewed project records, implementation activities, participant characteristics, and evaluation data to describe the initiative's implementation, reach, participant engagement, and perceived educational outcomes.

Study Setting

The project was implemented within MHC under the Patient Safety and Risk Management Department of the Executive Administration of Quality and Patient Safety. At the time of implementation, the department oversaw 10 hospitals and 82 primary healthcare centers in the Makkah region.

The project followed five sequential milestones:

1. Establishment of the Patient Safety Lessons Learned team.
2. Development of the Lessons Learned policy.
3. Communication of the approved policy across MHC.
4. Launch of the first Lessons Learned activity.
5. Implementation of patient safety knowledge-sharing activities across healthcare facilities.

Development and Governance of the Lessons Learned Project

A multidisciplinary Lessons Learned team was formally established to oversee the project. The team comprised 17 members representing Patient Safety and Risk Management, hospitals within MHC, and other relevant areas, including Model of Care and Patient Experience. All nominated representatives had experience or responsibilities related to quality and patient safety. The team was

responsible for identifying previous system failures and unsafe conditions; reviewing sentinel events, patient safety events, occurrence variance reports, and successful patient safety practices; identifying opportunities for performance improvement; reviewing and interpreting patient safety information; disseminating Lessons Learned findings; promoting patient safety knowledge; and maintaining the confidentiality of incident-related information. The team used a consensus-based approach for decision-making. When consensus could not be achieved, the team made decisions by simple majority vote. The team conducted 12 meetings during the project period to support project development and implementation.

Development of the Patient Safety Event Review Process

A standardized form was developed to collect information related to patient safety events. Before full implementation, the form was piloted in two hospitals and subsequently modified based on experience obtained during the pilot phase. Following pilot testing, Lessons Learned team members collaborated with Quality and Patient Safety personnel within their respective healthcare facilities to collect relevant patient safety events. The collected events were reviewed, discussed, analyzed, and filtered to determine their suitability for inclusion in the project. Reviewed events included previous system failures, unsafe conditions, sentinel events, patient safety events, occurrence variance reports, and successful patient safety practices. Selected events were categorized according to the type of safety issue and intended target audience. These categories were then used to determine appropriate approaches for communicating the resulting Lessons Learned messages.

Needs Assessment

Before launching the main educational activities, a brief needs-assessment survey was distributed among healthcare workers within MHC to identify preferred methods for receiving Lessons Learned messages. A total of 34 healthcare workers responded to the survey. The survey findings were used to guide the selection of educational strategies incorporated into the project.

Lessons Learned Knowledge-Sharing Intervention

Based on the reviewed patient safety events and findings of the needs assessment, four principal educational strategies were implemented:

- Lectures
- Educational videos
- Bilingual educational posters

- Active-learning activities

Separate working teams were assigned responsibility for developing and implementing each educational modality.

Lecture Series

The lecture series covered topics derived from identified patient safety events, including Just Culture, double-checking of patient identification, International Patient Safety Goals, fall assessment, occurrence variance reporting, suicide, physical and verbal attacks, second-victim experiences, effective communication, absenteeism, wrong procedures, medication-related errors, and wrong blood transfusion. The lecture series was delivered over 13 days during a three-week period, beginning on 6 February 2022. Sessions were generally conducted at 7:00 PM.

Educational Videos

Educational videos were developed to address commonly identified patient safety issues, including medication errors, patient falls, and incorrect labeling of blood samples. An additional introductory video was developed to explain the purpose and objectives of the Lessons Learned Project.

Educational Posters

The project team developed 11 bilingual posters in Arabic and English covering the International Patient Safety Goals, medication errors, high-risk patient falls, internal reporting systems, suicide-related events, and hazardous or unsafe conditions.

Active Learning

The active-learning component involved engagement with healthcare leaders and designated contact persons within healthcare facilities. These representatives supported communication of relevant Lessons Learned messages and followed up on recommendations and action plans arising from identified patient safety events.

Dissemination of Lessons Learned Messages

Multiple communication channels were used, including official emails, WhatsApp, stakeholder meetings, lectures, and MHC social media platforms. Educational videos were also incorporated into relevant patient safety lectures. The medication-error video was presented during the medication-error lecture,

the patient-fall video during the fall-assessment lecture, and the blood-sample labeling video during the wrong blood transfusion lecture.

Research Evaluation and Outcome Measures

Following implementation, project data were retrospectively reviewed to evaluate the reach, engagement, and perceived educational benefit of the initiative. Program reach was assessed using cumulative lecture attendance and the number of registered participants available for evaluation. Additional outcome variables included:

- Participant work setting
- Professional background
- Lecture attended
- Perceived benefit from the lecture series
- Rating of educational activities
- Preferred timing for future lecture cycles
- Willingness to participate as a speaker in a future Lessons Learned cycle
- Willingness to share a patient safety experience
- Open-ended feedback and recommendations

Participant comments were reviewed to describe perceptions of the educational content, patient safety awareness, reporting practices, and recommendations regarding continuation of the program.

Data Analysis

Quantitative data were analyzed using descriptive statistics. Categorical variables were summarized using frequencies and percentages. Open-ended comments were reviewed descriptively to identify recurring participant perspectives and provide contextual information regarding the perceived usefulness and acceptability of the Lessons Learned activities. Because the original project did not use a predefined formal qualitative analytic framework, these comments were not treated as a standalone qualitative dataset.

Ethical Considerations

The Lessons Learned Quality Improvement Project was implemented from September 2021 to May 2022 as an organizational patient safety and quality improvement initiative. Following completion of the quality improvement project, ethical approval for the retrospective research evaluation was obtained from the Institutional Review Board of the Directorate of Health Affairs, Makkah Region, Saudi Arabia. The research titled *Improving Patient Safety through Lessons*

Learned was approved on 1 February 2023 under the expedited review category (IRB No. H-02-K-076-0123-879). Confidentiality of patient safety events and incident-related discussions was maintained throughout the project and retrospective evaluation. Identifiable patient information was not presented in project educational materials or research reporting.

Results

Project Implementation and Outputs

The Lessons Learned Quality Improvement Project was implemented between September 2021 and May 2022 through five sequential milestones. A multidisciplinary team of **17 members** was established to oversee project implementation, and **12 team meetings** were conducted during the implementation period. A standardized patient safety event collection form was developed and piloted in two hospitals before wider implementation. Based on the pilot experience, the form was modified to improve the data-collection process. Patient safety events were subsequently collected, reviewed, discussed, analyzed, and filtered to determine their suitability for translation into Lessons Learned messages. A formal Lessons Learned policy was also developed, approved, and communicated across the healthcare cluster. The project generated multiple educational outputs, including a 13-day lecture series, educational videos, bilingual posters, and active-learning activities.

Table 1. Key Implementation Indicators and Outputs of the Lessons Learned Project

Indicator	Result
Project implementation period	September 2021–May 2022
Hospitals within MHC	10
Primary healthcare centers within MHC	82
Lessons Learned team members	17
Team meetings conducted	12
Hospitals included in pilot testing	2
Lecture-series duration	13 days over 3 weeks
Bilingual educational posters developed	11
Patient-safety educational videos	3
Introductory project video	1
Approximate cumulative lecture attendances	900
Registered participants available for evaluation	317

Approximately **900 cumulative attendances** were recorded across the lecture series. Because participants could attend more than one session, this figure represents total attendances rather than the number of unique individuals. Detailed participant-level evaluation data were available for **317 registered participants**.

Needs Assessment Findings

A total of **34 healthcare workers** participated in the initial needs-assessment survey. Of these, 30 worked in MHC hospitals and four worked at MHC headquarters. Participants represented quality and patient safety, nursing, administration, and patient experience.

Table 2. Characteristics of Participants in the Initial Needs Assessment (N = 34)

Characteristic of the Work setting	n
MHC hospitals	30
MHC headquarters	4
Professional/work area	
Quality and Patient Safety	15
Nursing	14
Administration	3
Patient Experience	2
Total	34

Videos were the most frequently preferred method for delivering Lessons Learned messages, followed by active learning, lectures, and posters. These findings informed the selection of the educational approaches subsequently implemented in the project.

Educational and Knowledge-Sharing Activities

The Lessons Learned Lecture Series was delivered over **13 days during a three-week period**. The educational topics were derived from identified patient safety events and included Just Culture, double-checking of patient identification, International Patient Safety Goals, fall assessment, occurrence variance reporting, suicide, physical and verbal attacks, second-victim experiences,

effective communication, absenteeism, wrong procedures, medication-related errors, and wrong blood transfusion.

The project also produced three patient-safety educational videos addressing **medication errors, patient falls, and incorrect labeling of blood samples**, in addition to one introductory project video. Furthermore, **11 bilingual posters** were developed in Arabic and English covering the International Patient Safety Goals, medication errors, high-risk patient falls, internal reporting systems, suicide-related events, and hazardous or unsafe conditions. Lessons Learned messages were disseminated through lectures, stakeholder meetings, official emails, WhatsApp, and MHC social media platforms. Relevant educational videos were also incorporated into corresponding lecture sessions.

Participant Characteristics and Program Reach

Among the **317 registered participants, 183 (57.7%)** worked within MHC, whereas **134 (42.3%)** worked outside MHC. Participants represented healthcare organizations across different regions of Saudi Arabia. The registration data also included a small number of participants from healthcare organizations in Canada, Iraq, and India. Nurses represented the largest professional group, accounting for **165 participants (52.1%)**, followed by physicians, pharmacists, administrative personnel, quality and patient safety professionals, and healthcare leaders.

Table 3. Professional Characteristics of Registered Participants (N = 317)

Professional Category	n	%
Nurse	165	52.1
Physician	31	9.8
Pharmacist	24	7.6
Administrative	24	7.5
Quality and Patient Safety	21	6.6
Leader	16	5.0
Manager	9	2.8
Technician	9	2.8
Physical Therapist	3	0.9
Head of Infection Prevention and Control	2	0.6
Chief Executive Officer	1	0.3

Professional Category	n	%
Forensic Biology	1	0.3
Radiation Therapist	1	0.3
Executive Director	1	0.3
Engineer	1	0.3
Health Information Management and Technology Specialist	1	0.3
Assistant Professor	1	0.3
Social Worker	1	0.3
Not specified	5	1.6
Total	317	100.0

Lecture Attendance by Topic

The 317 registered participants were distributed across 13 patient safety lecture topics. The highest participation was reported for the **Occurrence Variance Reporting System** and **Suicide** lectures, with 35 participants each (11.0%). These were followed by the International Patient Safety Goals lecture with 33 participants (10.4%) and Just Culture with 31 participants (9.8%). The lowest participation was reported for the Wrong Procedure lecture, with seven participants (2.2%).

Table 4. Distribution of Registered Participants by Lecture Attended (N = 317)

Lecture Topic	n	%
Occurrence Variance Reporting System	35	11.0
Suicide	35	11.0
International Patient Safety Goals	33	10.4
Just Culture	31	9.8
Fall Assessment	30	9.5
Second Victim	29	9.1
Double-Checking of Patient ID	23	7.3
Effect of Absenteeism	22	6.9
Medication Errors: Dispensing, Ordering, and Administration	20	6.3
Effective Communication	19	6.0

Lecture Topic	n	%
Physical and Verbal Attack	18	5.7
Wrong Blood Transfusion	15	4.7
Wrong Procedure	7	2.2
Total	317	100.0

Perceived Benefit and Overall Evaluation

Most participants reported receiving the expected benefit from the Lessons Learned Lecture Series. Of the 317 respondents, **285 (89.9%)** reported that they received the expected benefit, **24 (7.6%)** responded “Maybe,” and **8 (2.5%)** responded “No.” The overall evaluation of the educational activities was also favorable. Approximately **73% of respondents rated the educational experience as Excellent**, 22% rated it as Very Good, and 5% rated it as Good. No respondents selected Fair or Poor.

Preferred Timing and Future Participation

When participants were asked about their preferred timing for future Lessons Learned activities, **241 (76.0%)** preferred sessions to be conducted after duty hours in the evening. Forty-seven participants (14.8%) preferred afternoon sessions during working hours, while 29 (9.1%) preferred morning sessions. Regarding future participation, **113 participants (35.6%)** indicated that they would be willing to serve as speakers in a subsequent Lessons Learned cycle, whereas **204 (64.4%)** indicated that they would not. When participants were asked whether they had a patient safety experience from which they had learned and would be willing to share through the Lessons Learned Project, **44 (13.9%)** responded “Yes,” whereas **273 (86.1%)** responded “No.”

Table 5. Evaluation Outcomes and Future Participation Preferences (N = 317)

Outcome	Response	n	%
Received expected benefit	Yes	285	89.9
	Maybe	24	7.6
	No	8	2.5
Preferred timing for next cycle	Evening, after duty hours	241	76.0
	Afternoon, during working hours	47	14.8

Outcome	Response	n	%
	Morning, during working hours	29	9.1
Willing to be a speaker in the next cycle	Yes	113	35.6
	No	204	64.4
Willing to share a patient safety experience	Yes	44	13.9
	No	273	86.1

Participant Feedback

Open-ended feedback was predominantly positive. Participants described the lecture series as informative, useful, and relevant to patient safety practice. Comments reflected perceived improvements in awareness of error identification, reporting systems, policies and procedures, and approaches to preventing recurrence of patient safety events. Several participants recommended continuing the Lessons Learned activities and further disseminating patient safety awareness. One participant reported learning “how to find errors and improve in the future according to policy and procedures,” while another highlighted learning about improving the reporting system. Participants also emphasized the value of continuing the educational activities and maintaining patient safety awareness efforts.

Discussion

The present study retrospectively evaluated the Lessons Learned Quality Improvement Project implemented across Makkah Healthcare Cluster. The initiative established a structured multidisciplinary approach for identifying patient safety events, translating learning from these events into educational content, and disseminating patient safety knowledge through multiple communication and educational strategies. The findings demonstrated broad engagement and high perceived educational benefit. However, they also identified a considerable difference between healthcare professionals’ willingness to receive patient safety information and their willingness to actively share their own patient safety experiences.

A principal achievement of the initiative was the establishment of an organized mechanism for converting patient safety events into opportunities for organizational learning. A multidisciplinary team of 17 members was

established, a standardized event-collection process was developed and piloted, and patient safety events were reviewed and selected for translation into Lessons Learned messages. This approach is consistent with the current international direction in patient safety, which emphasizes that incident-reporting systems should generate information and knowledge that can be used to mitigate risk and improve the safety of care rather than functioning only as repositories of reported events (WHO, 2021).

The use of multiple educational approaches was another important feature of the project. The initial needs assessment indicated preferences for videos, active learning, lectures, and posters, and these approaches were subsequently incorporated into project implementation. The final initiative included a 13-day lecture series, educational videos, 11 bilingual posters, and active-learning activities. The combination of different educational modalities provided several mechanisms through which patient safety messages could reach healthcare professionals with different professional backgrounds and learning preferences. Other patient safety initiatives have similarly demonstrated the potential value of structured educational programs that integrate communication, teamwork, and speaking-up principles into broader safety-improvement strategies (Nakatani et al., 2024).

The initiative achieved participation beyond the organization in which it was developed. Among registered participants, 57.7% worked within MHC, whereas 42.3% worked outside the Cluster. Participants represented healthcare organizations across Saudi Arabia, with a small number also participating from outside the Kingdom. These findings demonstrate the potential reach of digitally supported patient safety learning initiatives beyond the organization in which they originate. However, the present evaluation did not assess scalability directly.

Nurses represented the largest professional group, accounting for 52.1% of registered participants. Although multidisciplinary participation was achieved, the predominance of nurses should be considered when interpreting the evaluation findings. Nursing involvement is particularly relevant to patient safety learning because nurses interact continuously with clinical care processes and patient safety reporting systems. Previous evidence has shown that perceptions of Just Culture are associated with nurses' attitudes and behaviors regarding patient safety incident reporting (Han et al., 2024), while Saudi evidence has highlighted associations between safety culture, organizational factors, and incident-reporting behavior among healthcare professionals (Alsahli et al., 2024).

The evaluation demonstrated high perceived educational benefit. A total of 89.9% of participants reported receiving the expected benefit from the lecture series, whereas only 2.5% reported that they had not received the expected benefit. Furthermore, approximately 73% rated the overall educational experience as excellent and 22% as very good. These findings indicate strong participant acceptability and perceived usefulness. However, perceived benefit should not be interpreted as equivalent to demonstrated improvement in patient safety outcomes. Educational program evaluations that aim to establish effectiveness should ideally incorporate objective measures such as changes in knowledge, communication behavior, reporting practices, adverse-event trends, or other safety outcomes (Nakatani et al., 2024).

The preferred timing of future educational activities also has practical implications. More than three-quarters of respondents (76.0%) preferred future sessions after duty hours in the evening. This finding provides actionable information for planning future Lessons Learned cycles and may facilitate participation across different professional groups and clinical shift patterns. Participant comments also supported continuation of the initiative and emphasized the perceived value of improving awareness, learning from errors, strengthening reporting practices, and continuing patient safety education.

One of the most important findings was the relatively limited willingness of healthcare professionals to actively contribute their own patient safety experiences. Only 13.9% indicated that they had an experience they wished to share through the Lessons Learned Project, while 86.1% responded negatively. Only 35.6% expressed willingness to serve as speakers in a subsequent project cycle. This contrast suggests that willingness to participate as recipients of patient safety education may not necessarily translate into willingness to contribute personal safety experiences to organizational learning.

The present study did not assess the reasons underlying this finding, and therefore no specific cause can be established from these data. Nevertheless, recent Saudi evidence provides important context. A national study involving more than 145,000 healthcare professionals found that reporting-culture measures remained variable across Saudi hospitals (Alkahf & Alonazi, 2024). Another Saudi study identified significant associations between safety culture and incident-reporting behavior and highlighted the importance of organizational and management factors (Alsahli et al., 2024). In addition, a qualitative study among nurses in Saudi Arabia identified fear of punishment, lack of organizational support, insufficient reporting knowledge, and inadequate

feedback among perceived barriers to reporting medication errors (Alotaibi, 2024). These factors provide plausible areas for future investigation but cannot be assumed to explain the responses of participants in the present study.

International evidence similarly highlights the importance of a Just Culture and psychological safety in encouraging healthcare workers to report and discuss patient safety events. Han et al. (2024) found that perceptions of Just Culture were significantly associated with both attitudes and behaviors related to patient safety incident reporting among perioperative nurses. Lee et al. (2023) demonstrated that communication openness, reporting of adverse events, and supervisory and management support for patient safety were associated with healthcare workers' speaking-up behaviors. Psychological safety has also been associated with healthcare workers' capacity to raise concerns and communicate about safety issues (Adair et al., 2022).

Furthermore, qualitative research on the implementation of Just Culture has shown that staff may remain uncertain about incident investigations when organizational processes lack transparency, when the concept of Just Culture is poorly understood, or when employees are uncertain whether investigations will lead to meaningful improvement (Tasker et al., 2023). These findings reinforce the importance of ensuring that Lessons Learned programs are supported by visible organizational responses, clear confidentiality mechanisms, transparent follow-up processes, and communication demonstrating how reported or shared experiences result in meaningful improvement.

For future cycles, the Lessons Learned program could therefore incorporate structured mechanisms for confidential and psychologically safe participation. Potential approaches include anonymized case submission, facilitated multidisciplinary debriefing, confidential channels for sharing safety experiences, clearer communication about how events are reviewed, and systematic feedback regarding corrective actions arising from shared lessons. These strategies should be prospectively evaluated rather than assumed to improve reporting or sharing behavior.

Strengths and Limitations

This study had several strengths. The underlying quality improvement project was implemented across a large healthcare network comprising 10 hospitals and 82 primary healthcare centers and was supported by a multidisciplinary team and a structured process for reviewing patient safety events. Multiple

educational formats and dissemination channels were used, and participation extended beyond MHC.

Several limitations should also be acknowledged. First, the initial needs-assessment survey included only 34 participants and may not fully represent the preferences of the wider healthcare workforce. Second, participation in the educational activities was voluntary, and registration was not mandatory. Consequently, approximately 900 cumulative attendances were recorded across the 13-day lecture series, whereas detailed participant-level evaluation data were available for 317 registered participants. The cumulative attendance figure may include repeated attendance by the same individuals across different sessions and should therefore not be interpreted as the number of unique participants.

The study also lacked a comparison group and did not measure objective changes in patient safety indicators, including incident-reporting rates, medication errors, patient falls, sentinel events, or patient harm before and after implementation. Therefore, causal conclusions regarding the effect of the Lessons Learned initiative on patient safety outcomes cannot be made. The findings instead provide evidence regarding feasibility, reach, participant engagement, perceived educational benefit, and the establishment of a structured organizational learning process. Finally, open-ended comments were not collected and analyzed according to a predefined qualitative research methodology. Accordingly, these comments were used only as descriptive contextual information and should not be interpreted as formal qualitative findings.

Implications for Practice and Future Research

The findings support the feasibility of establishing a structured Lessons Learned mechanism within a large healthcare network and demonstrate the potential value of integrating patient safety event review with multidisciplinary knowledge dissemination. This approach aligns with contemporary international priorities emphasizing incident-reporting and learning systems as mechanisms for translating safety information into improvement (WHO, 2021).

Future evaluations should adopt stronger outcome designs and incorporate pre- and post-intervention measures of knowledge, reporting behavior, implementation of corrective actions, selected patient safety indicators, and longitudinal sustainability. Future research should also specifically investigate barriers and facilitators affecting healthcare professionals' willingness to share

safety experiences, including perceptions of Just Culture, management support, confidentiality, feedback, and psychological safety.

Conclusion

The Lessons Learned initiative established a structured, multidisciplinary approach for reviewing patient safety events, translating identified lessons into educational content, and disseminating patient safety knowledge across a large healthcare network. The retrospective evaluation demonstrated broad engagement and high perceived educational benefit, with 89.9% of participants reporting that they received the expected benefit from the lecture series. However, only 13.9% indicated willingness to share a patient safety experience through the project, identifying an important area for future organizational learning initiatives.

These findings support the feasibility, reach, engagement, and perceived educational value of a structured Lessons Learned program but do not demonstrate a direct reduction in patient harm. Future evaluations should incorporate objective measures of knowledge, reporting behavior, implementation of corrective actions, and patient safety outcomes.

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Conflict of Interest

The authors declare that they have no conflicts of interest related to the conduct, preparation, or publication of this study.

Supplementary Educational Materials

To access the educational materials developed as part of the Lessons Learned Project, including the lecture series, educational videos, and bilingual posters, readers are invited to scan the QR code below. All materials are freely available for viewing and educational use. We are proud to share these resources to support wider dissemination of patient safety knowledge and organizational learning.

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