

BMJ Open Quality Requirements for implementing a 'just culture' within healthcare organisations: an integrative review

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ABSTRACT

Purpose To identify requirements for implementing a 'just culture' within healthcare organisations.

Methods Using Whittemore and Knaff's methodology for integrative reviews, we searched PubMed, PsychInfo, Cumulative Index of Nursing and Allied Health Literature, ScienceDirect, Cochrane Library and ProQuest Dissertations and Theses. Publications were considered eligible when reporting requirements for implementing a 'just culture' within healthcare organisations.

Results After screening for inclusion and exclusion criteria, 16 publications were included in the final review. Four main themes were identified: leadership commitment, education and training, accountability and open communication.

Conclusion The themes identified in this integrative review provide some insight into the requirements for implementing a 'just culture' within healthcare organisations. To date, most of the published literature on 'just culture' is theoretical in nature. Additional efforts are needed to conduct research to explore further what requirements must be addressed in order to successfully implement a 'just culture' which is needed to promote and sustain a culture of safety.

INTRODUCTION

One of the greatest challenges facing efforts to improve patient safety in the healthcare industry is the underreporting of medical errors.¹ In addition, these additional factors have challenged healthcare systems to improve patient safety: organisational (eg, poor allocation of staffing, equipment and supplies), environmental (eg, poor equipment design and maintenance, excessive noise, inadequate lighting), individual (eg, fatigue, distraction, memory lapses), team (eg, poor leadership, unsafe supervision, communication and coordination), policies (eg, lack of standardisation) and more.²

Understanding why medical errors occur is essential to learning from them to prevent future recurrence. However, there is a long-standing history of using blame and shame when medical errors occur which deters healthcare professionals from reporting them for fear of the adverse consequences.³

WHAT IS ALREADY KNOWN ON THIS TOPIC

⇒ The state of the science on requirements for implementing a 'just culture' is relatively scant. Most of what is published is theoretical in nature. The small sample of scientific evidence available highlight some of the challenges of implementing and sustaining a 'just culture'.

WHAT THIS STUDY ADDS

⇒ This integrative review provides insight into organisational requirements that must be met in preparation for the implementation of 'just culture'.

HOW THIS STUDY MIGHT AFFECT RESEARCH, PRACTICE OR POLICY

⇒ This review highlighted the paucity of evidence available on 'just culture'. It also demonstrated the need for research focused on the impact of the implementation of 'just culture' on patient safety outcomes.

A critical step in addressing the pervasiveness of medication errors, and improving patient safety, is to have a better understanding of why these adverse events occur.³⁻⁵

One method for increasing the reporting of medical errors and learning from incidents is to implement a 'just culture'.^{6,7} For the purpose of this paper, 'just culture' is defined as processes within organisations that are implemented in order to achieve a fair decision on actions to be taken with individuals involved in either adverse safety occurrences or near misses.⁶⁻⁸ Near misses are safety incidents which do not result in adverse outcomes but have the potential to do so.⁷ Essential to implementing a 'just culture' is focusing on openness, transparency and learning from adverse events rather than assigning blame.⁷⁻⁹ There are a number of individual and institutional factors that hinder the successful implementation of a 'just culture'.⁷ The overarching purpose of this integrative review was to identify and integrate existing literature relating to the



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requirements for implementing a 'just culture' within healthcare organisations.

METHODS

An integrative review method was used in order to explore several diverse evidence sources of varying levels and perspectives in order to answer the question posed. Using an integrative review methodology, evidence can be derived from quantitative, qualitative and mixed methods research, systematic and integrative reviews as well as publications related to theory, clinical practice and expert opinions (eg, letters to the editor, conference abstracts and so on).⁹⁻¹¹ Integrative reviews provide a holistic understanding of topics of interest by presenting what is known about the state of the science. Systematic reviews are different in that they are limited to empirical studies which employ specific research designs.^{9 10} The integrative review methodology includes many strengths to include the ability to analyse research literature, evaluate the quality of evidence located, combine findings from studies using various research designs, generate robust research questions as well as create theoretical frameworks.¹¹ Because integrative reviews have features similar to systematic reviews, they are considered to have the same level of rigour.¹² For the purpose of this integrative review, the methodology used was based on the framework of Whitemore and Knaff¹³ which is based on Cooper's¹⁴ taxonomy that describes integrative reviews

based on five stages. The five stages include: (1) problem identification, (2) literature search, (3) data evaluation, (4) data analysis and (5) presentation.^{9 12 13} These guidelines are important for ensuring the rigour and quality of the integrative review.^{10 13} Table 1 describes each stage of Whitemore and Knaff's¹³ methodology which were used for this integrative review.

Problem identification

The question for this integrative review was: (1) Among healthcare organisations implementing a 'just culture', what requirements need to be met?

Literature search strategy

Throughout October 2022, we searched PubMed, PsychInfo, Cumulative Index of Nursing and Allied Health Literature, ScienceDirect, Scopus, the Cochrane Library and ProQuest Dissertations and Theses for eligible literature published January 2012 to October 2022. Boolean operators (AND, OR) were used and search terms included 'just culture', 'healthcare system', 'healthcare organization', 'health care', 'healthcare', 'implementation', 'implementation requirements'.

Inclusion and exclusion criteria

Inclusion criteria were peer-reviewed, interdisciplinary documents (eg, publications, dissertations, conference proceedings, grey literature) written in English over a 10-year period from 2012 to 2022 using the Boolean

Table 1 Five stages of integrative reviews

Stage	Description	Steps completed
Stage 1: problem identification	Clearly identify the topic of interest, a well-specified review purpose, questions to be answered and inclusion and exclusion criteria for the search method	The underreporting of medical errors in the USA remains a threat to patient safety. One method for addressing this issue is by implementing a 'just culture'. The aim of this integrative review was to identify existing literature relating to the requirements for implementing a 'just culture' within healthcare organisations.
Stage 2: literature search	Create a comprehensive search strategy to identify all relevant publications on the identified topic and gather information using select keywords	The authors identified databases to search (PubMed, PsychInfo, Cumulative Index of Nursing and Allied Health Literature, ScienceDirect, Scopus, the Cochrane Library and ProQuest Dissertations and Theses). Search terms included 'just culture', 'healthcare system', 'healthcare organization', 'health care', 'healthcare', 'implementation', 'implementation requirements'. This generated 60 potentially relevant sources that were screened for eligibility, yielding a final sample of 16 reports.
Stage 3: data evaluation	Assess the quality of the information retrieved	The authors used the Critical Appraisal Skills Programme appraisal tool because it accommodates multiple research designs and has well-defined review criteria.
Stage 4: data analysis	Interpret the information collected according to findings, themes, concepts and so on.	Two authors (JSM and JC) developed a template for extracting information about the evidence (e.g., author/year, country, aim, method/study design, setting/sample, level of evidence, theme(s) identified) relevant to the aim of the review. Following extraction of the data by the first, author, the coauthors assessed extracted information for accuracy and completeness.
Stage 5: presentation	Develop tables, figures, graphs to display findings for publishing and presenting	Following a description of the 16 sources of evidence included in the review, the authors identified for recurring themes based on their analysis (leadership commitment, education and training, accountability and open communication). Results were summarised in tables and discussed in the text.

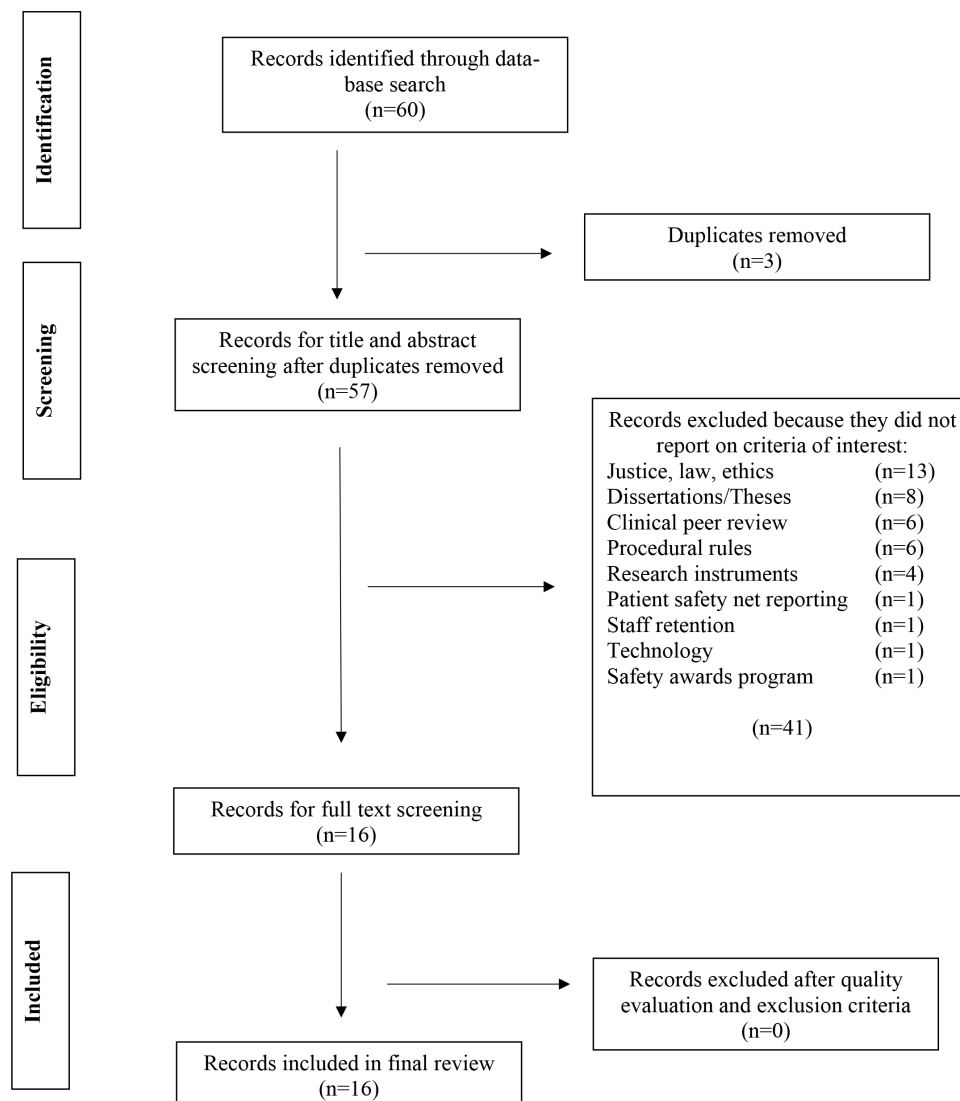


Figure 1 Integrative review flow diagram. Requirements associated with implementing a ‘just culture’ in healthcare organisations.

operators. Books were excluded from the review as well as evidence that did not focus on requirements for implementing a ‘just culture’.

Search results

The review was accomplished using a two-step process as described by O’Doherty *et al.*¹⁵ where in step one a review of all titles and abstracts are reviewed. Two authors (JKL and JSM) independently screened titles and abstracts for eligibility. A third author (SL) resolved any discrepancies. This is followed by a thorough review of the documents using both inclusion and exclusion criteria. Finally, a final decision is made as to which articles to include in the review.¹⁵ This was accomplished by two authors (JKL and JSM). After screening for inclusion and exclusion criteria, 60 documents were identified. Three duplicates were disregarded. Forty-one documents were subsequently excluded from full review because they did not report requirements associated with implementing a ‘just culture’ in healthcare. The remaining

16 documents were deemed as appropriate for inclusion in the synthesis (figure 1). This process was reviewed by two authors (DS and JSM) for accuracy. An essential step when conducting an integrative review is critically appraising the evidence collected.¹¹ We used the Melnyk and Fineout-Overholt¹⁶ hierarchy of evidence rating system to rank the literature collected according to level of evidence (table 2). Levels of evidence were assigned to studies based on the methodological quality of their design, validity and applicability to patient care. Levels of evidence include: I (systematic reviews or meta-analyses of randomised controlled trials (RCTs)), II (evidence from at least one RCT), III (controlled trials without randomisation), IV (case control or cohort studies), V (systematic reviews of descriptive/qualitative studies), VI (evidence from a single descriptive/qualitative study) and VII (evidence from expert opinion, editorials, or commentaries).¹⁶ This process was completed by two authors (AR and JC).

Table 2 Hierarchy of evidence

Level I	Evidence based on systematic reviews or meta-analyses of RCTs; clinical guidelines based on systematic reviews or meta-analyses
Level II	Evidence collected on well-designed RCTs
Level III	Evidence from non-RCTs
Level IV	Evidence from well-designed cohort and case-control studies
Level V	Evidence from systematic reviews of qualitative and descriptive studies
Level VI	Evidence from qualitative and descriptive studies
Level VII	Evidence from expert opinions and/or reports of expert committees
RCTs, randomised controlled trials.	

Data evaluation

Because integrative reviews include a wider range of evidence reviewed, from research to expert opinions and commentaries, quality appraisal of the evidence requires using different methodologies consistent with the type of evidence.¹⁰ In addition to the hierarchy of evidence rating system to critically appraise the quality of evidence, the authors used the Critical Appraisal Skills Programme (CASP) appraisal tool for the research evidence. The CASP tool is specifically designed to appraise the quality of different study designs (eg, quantitative, qualitative, mixed methods).¹⁷ This process was completed by two authors (JSM and JC). Any discrepancies were discussed until consensus was achieved.

Thematic analysis of the evidence was completed using the methodology of Nowell *et al*. There are six phases associated with this approach: (1) becoming familiar with the data/evidence, (2) identifying initial codes, (3) exploring for themes, (4) reviewing the themes, (5) naming the themes and (6) producing a report with the themes addressing the aims.¹⁸

RESULTS

Sixteen publications were included in the review; 6 were data-based, and 10 were expert opinions, editorials or commentaries. Levels of evidence ranged from IV to VII. A summary of search results is presented in [table 3](#). Four main themes were identified: leadership commitment, education and training, accountability and open communication.

Leadership commitment

The first overarching theme is leadership commitment. Three of the data-based publications, a qualitative study,⁷ integrative review,¹⁹ systematic review²⁰ and six expert opinions, editorials, commentaries,^{8 21–25} highlighted the need for leadership to have unwavering commitment to implementing as well as sustaining a ‘just culture’ within healthcare organisations. Leaders must be fully engaged in creating a ‘just culture’ by being visible, accessible, approachable and committed to providing the support and resources needed.^{8 21–23 25} Critical to implementing ‘just culture’ principles, behaviours and practices is leaders

establishing clear behavioural expectations, performance criteria and competencies which are critical for creating an all-encompassing culture of accountability.^{7 8 22 24 25} Examples of how leadership commitment can be demonstrated is by leaders walking the talk. Observable actions that promote ‘just culture’ are needed for verbalising commitment. Leaders are not perfect. When leaders make mistakes, they should immediately take responsibility for them. This level of commitment will increase the probability that staff will do the same and report errors and concerns related to safety in the workplace.^{7 8}

Education and training

Education and training related to ‘just culture’ and patient safety in general was the second theme identified. Three data-based publications, a qualitative study using interviews,²⁶ quantitative study using surveys²⁷ and an integrative review¹⁹ as well as six expert opinions, editorials or commentaries, provided support for this emerging theme.^{8 19 21 27–29} Freeman *et al*²⁶ and Barkell *et al*¹⁹ emphasised the importance of education in successfully implementing the principles and practices of a ‘just culture’ during the initial phase of application. Furthermore, Freeman *et al*²⁶ also stressed the importance of ongoing education following the introduction of a ‘just culture’. Ongoing education is critical for helping leaders and staff to feel competent and confident with adopting ‘just culture’ across the healthcare organisation. Some of the topics identified for education and training to enhance competency and confidence include conflict resolution, effective communication, investigating safety events, existing error reporting systems, critical thinking and decision-making.^{20 26 30} David²⁷ found that while formal training was an important aspect of implementing a ‘just culture’, ensuring that the organisational culture was ready for such training was essential. Organisational cultures where individuals share a core set of beliefs, values and patterns of behaviour are more likely to benefit from training compared with organisations that are strongly hierarchical in nature.^{19 27} Finally, it is important to provide training to help staff recognise the importance of continually striving to improve patient safety, understand the types of behavioural choices and appropriate remedies

Table 3 Summary of evidence included in the integrative review

Author/year/country	Aim	Method/study design	Setting/sample	Level of evidence	Theme(s) identified
Summary of data-based publications					
Barkell <i>et al</i> ¹⁹ 2020 USA	Appraise the literature regarding the use and application of 'just culture' in healthcare.	Integrative review	Ten studies	V	Education and training related to 'just culture', promoting a culture of non-punitive response to error and leadership commitment
David ²⁷ 2019 USA	Determine whether there was an association between organisational culture and readiness for 'just culture' training.	Quantitative (survey)	Two suburban hospitals Participants: 172 physician hospitalists	IV	Training, trust, openness of communication and changing organisational culture
Freeman <i>et al</i> ²⁶ 2016 Canada	Explore nurse manager perspectives on competencies for successfully implementing a 'just culture' on their respective units.	Qualitative (semi-structured interviews)	Regional hospital Participants: nine nurse managers	VI	Education and training related to 'just culture', changing organisational culture of blame and punishment, accountability
Paradiso <i>et al</i> ³⁰ 2019 USA	Examine whether there was a relationship between trust, 'just culture', and error reporting.	Quantitative (correlational, cross-sectional study)	Independent teaching hospital Participants: convenience sample of 1500 clinical nurses and 80 nurse leaders	IV	Trust, open communication and balanced accountability
van Baarle <i>et al</i> ⁷ 2022 The Netherlands	Explore requirements and challenges for fostering a 'just culture' within healthcare organisations.	Qualitative (interviews and focus groups)	Five healthcare organisations Participants: five project groups	VI	Open communication, room for emotions and involvement of leadership
van Marum <i>et al</i> ²⁰ 2022 The Netherlands	Investigate barriers and enhancers to trust in error reporting in a 'just culture'.	Systematic review	Fourteen articles	V	Organisational factors, team dynamics and experience level
Summary of expert opinions, editorials, commentaries					
Armstrong ²⁸ 2019 USA	Explore how 'just culture' has expanded the understanding of patient safety.	Perspective and Editorial	One professor, two associate editors	VII	Education, openness of communication
Fencel <i>et al</i> ²⁵ 2021 USA	Describe creating a 'just culture' for staff safety in the perioperative setting.	Perspective	Three network health providers	VII	Psychological safety, leader responsibility, staff member accountability, enhanced communication and staff member empowerment
Lai ³¹ 2018 USA	Provide an overview of 'just culture' for surgeons.	Editorial	One journal editor	VII	Accountability
Lockhart ²² 2015	Describe the development of a 'just culture'.	Expert opinion	One nurse manager	VII	Transparency, leadership commitment, open communication and frontline staff engagement
Marx ²⁹ 2019 USA	Describe 'just culture' as a cornerstone to patient safety.	Perspective	One consultant	VII	Education and accountability

Continued



Table 3 Continued

Author/year/country	Aim	Method/study design	Setting/sample	Level of evidence	Theme(s) identified
Murray <i>et al</i> ⁸ 2022 USA	Describe the principles and practices of a 'just culture' in healthcare.	Brief Report	High reliability organisation support team	VII	Engaged leadership, set expectations, accountability, training and assess staff members' perceptions
Oliver ³² 2018 UK	Describe accountability— individual blame vs a 'just culture'.	Perspective	One clinical consultant	VII	Accountability
Rogers <i>et al</i> ²³ 2017 USA	Describe ways that pharmacy directors can use 'just culture' to manage the degree of error in patient-centred pharmacy services.	Director's forum	Five pharmacy directors	VII	Leadership engagement, values clarification and accountability
Shabel <i>et al</i> ²¹ 2012 USA	Describe the Missouri 'Just Culture' collaborative.	Collaborative opinion	50 healthcare organisations	VII	Leadership commitment and training
Ulrich ²⁴ 2017 USA	Describe healthcare worker safety and 'just culture'.	Editorial	One journal editor	VII	Leadership commitment, behavioural standards and accountability

associated with a 'just culture' and discuss methods for effectively responding to errors when they occur.^{8 21 28 29} One example for promoting 'just culture' education and training is to offer training sessions that are 30–60 min in duration. These sessions can also be offered as self-paced online learning modules. Content includes a definition of 'just culture', different behavioural choices individuals may make, remedies to the various types of choices, principles of accountability (individual and organisational) and use of the 'just culture' algorithm/decision support tool using case studies.^{7 8 31}

Accountability

An important theme that emerged from two data-based publications^{26 27} and eight expert opinions, editorials and commentaries^{8 23–25 29–32} was having in place a system of shared and balanced accountability where organisations are responsible for systems-related issues and individuals are responsible for the choices that they make. A shift in organisational culture needs to occur from one of punishment to one of accountability.^{8 24 26 30} It is also critical to recognise that every individual is responsible for their behaviours if they knowingly fail to follow safety procedures or policies, regardless of hierarchical position within an organisation.^{25 31} Finally, implementing a 'just culture' requires that behavioural standards be established for all members of an organisation to hold individuals accountable for their actions.^{19 24} Examples of actions that can be taken, especially to educate staff, is having organisational clarity around accountability. Individuals should know exactly what it means to be held accountable. It is the responsibility of leadership to create a culture of shared accountability across the organisation. This includes making certain that staff understand

their roles and expectations, have the requisite skills to perform their job, are given the necessary time and resources to achieve goals and are provided with timely feedback regarding performance.^{23 32–34} Additionally, there should be clear consequences for both success and failure.³⁵ From the authors' experience, standards and expectations should be included in annual performance evaluations. Leaders must set clear expectations, goals and metrics. For example, for senior leaders, examples of standards might be: enhances a culture of safety by supporting the principles of a 'just culture', provides clear direction and expectation for how work should be accomplished, develops clear standards and metrics against which professional performance is measured, hold professionals accountable for their behaviour and so on.

Open communication

Open communication was the fourth recurring theme found with the integrative review. Three data-based publications^{7 26 30} and three expert opinions, editorials or commentaries^{22 25 28} noted the importance of open communication for implementing a 'just culture'. Van Barlee *et al*⁸ highlighted the importance of creating a culture where open communication means withholding judgement, creating opportunities for the expression of diverging opinions and avoiding blaming and shaming individual when things go wrong. Instead, focus should be placed on identifying possible organisational issues that may have resulted in the situation. Time should be taken to carefully reflect on and discuss the events of the situation and learn as a team.^{6 19 22 30} This joint reflection in communicating, and adopting a listening approach, is an important indicator of shared responsibility in a

'just culture'.^{7 19 20} Open communication in large healthcare institutions can be challenging. A best practice for open communication in large organisations is employee forums. Employee forums provide a chance for many staff members to ask questions of leadership and is very effective in promoting open communication. Employee forums are typically conducted in a virtual environment to give as many individuals as possible the opportunity to participate. They are also frequently recorded to give staff on rotating shifts, or geographically dispersed outpatient clinics, the opportunity to listen to the information shared.³⁵

DISCUSSION

In order for healthcare organisations to improve patient safety and the delivery of quality care, staff must be comfortable speaking up when they observe concerns, increase near miss and error reporting and use adverse events as opportunities for learning. These steps require a 'just culture'. Implementing a 'just culture' requires a thoughtful approach to understanding what needs to be in place for success. This integrative review identified four recurring themes required for the successful implementation of a 'just culture': leadership commitment, education and training, accountability and open communication. We hope that these findings will be of help for healthcare organisations on the journey to implementing a 'just culture'.

This integrative review also highlighted that the published papers on 'just culture' over the past 10 years are predominantly theoretical in nature with quality of existing evidence mainly focused on expert opinions, editorials and commentaries. The scarcity of empirical evidence demonstrates how essential the need is for more research to inform strong practices for implementing and sustaining a 'just culture' to improve healthcare safety and patient outcomes. Robust programmes of research focused on 'just culture' implementation, and the impact on patient outcomes, may be the linchpin needed to finally improve safety in healthcare organisations.¹⁹

Limitations

There are some limitations characteristic of integrative reviews that deserve mention as they may have impacted our findings. Publications may have been overlooked as a result of the exclusion of databases other than the ones used for this integrative review. Likewise, use of additional search methods, search terms and Boolean operators may have resulted in more findings. The inclusion criterion of a 10-year time span may have been another limitation. Finally, the language restriction may have resulted in selection bias.

CONCLUSION

Implementing 'just culture' successfully is essential for making progress with patient safety. Understanding what is required to effectively put into practice 'just culture'

principles and practices is a critical first step in the process. The four themes identified in this integrative review provide insight into areas in particular need of focus in clinical practice, with education and training as well as policy making and future research. Future research should aim to generate more evidence as it relates to the impact that the four themes have on improving patient safety outcomes.

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