

Hospital Risk Management and Impact on Improving the Quality of Healthcare

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Abstract

Background: Risk management represented a critical component of healthcare quality improvement, particularly in addressing medical errors and adverse events that threatened patient safety. Healthcare institutions worldwide faced mounting pressure to implement systematic risk management approaches.

Objective: This research aimed to explore the impact of risk management on healthcare quality improvement in Saudi private hospitals by examining the relationships between risk management practices and key performance dimensions including leadership and governance, environment and safety, and overall healthcare quality.

Methods: A descriptive-analytical methodology was employed using a structured questionnaire distributed to 193 healthcare professionals working in Saudi hospitals. The research instrument measured three dimensions of risk management and healthcare quality outcomes. Data were analysed using descriptive statistics and Analysis of Variance (ANOVA).

Results: The findings revealed high implementation levels across all risk management dimensions, with mean scores ranging from 4.39 to 4.46. ANOVA results demonstrated statistically significant impacts of risk management on leadership and governance ($F=19.788$, $p<0.001$), environment and safety ($F=20.614$, $p<0.001$), and overall healthcare quality ($F=16.092$, $p<0.001$).

Conclusion: Risk management significantly influenced healthcare quality improvement in Saudi hospitals. Effective implementation of risk management strategies enhanced organizational leadership, environmental safety protocols, and patient care outcomes, thereby confirming the critical role of systematic risk management in modern healthcare delivery.

Keywords: Risk management, Hospitals, Quality of healthcare, Patient safety, medical errors, Risk management strategies.

1. Introduction

The modern healthcare environment was more complex, full of complex medical process, high-technology intervention methods, and multidisciplinary systems of care provision (Keddy et al., 1988). In this context, hospital risk management was adopted as an irreplaceable model of protecting patient well-being and, at the same time, improving the performance of the organisation. The development of risk management in health care facilities began with the medical malpractice crisis of the mid 1970s when the rising costs of litigation and insurance premiums forced healthcare facilities to implement proactive measures in the identification and reduction of risk factors (Keddy et al., 1988). Risk management over the decades was no longer limited to the reduction of liability but includes extensive quality improvement policies that cut across the board in healthcare delivery (Zamberg,

2023). The systematic risk identification, evaluation, and reduction have been acknowledged not only as protection against legal liability, but as core requirements of providing safe, effective, and patient-centred care (McGowan et al., 2025).

The healthcare industry stood out of the other industries due to its extremely high-stakes environment where failure in operations could lead to irreparable damage or even loss of lives (Hughes, 2008). Medical errors remained one of the major causes of death in the world, with the estimates indicating that more than 250,000 deaths each year in the United States were caused by avoidable adverse events (Yek, 2022). These grim statistics highlighted the extreme need to have strong risk management frameworks that can help to mitigate the systemic vulnerabilities that are typical of healthcare delivery. Moreover, the growing number of medical technologies, pharmacological procedures, and

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treatment regimens increased the possibility of errors at various stages of the care process (Hughes, 2008). Although the introduction of electronic health records can be associated with significant advantages, it also brought about new types of risks associated with the safety of data, system compatibility, and the precision of information (Zamberg, 2023). In turn, contemporary healthcare organisations needed extensive risk management solutions that would go beyond conventional clinical risks and focus on new technological risks arising (Qualityze, 2025).

The healthcare sector in Saudi Arabia has undergone booming growth and professionalisation with mass government investment, and the plans of a national health transformation as ambitious projects (Hasiu et al., 2025). The Practise of private hospitals in the Kingdom took a more central stage in healthcare provision, providing high-quality medical services and competing among them in terms of quality indications and safety rates. Nevertheless, this growth pattern was accompanied by an increase in the level of patient safety awareness and the need to develop standard risk management practises that are congruent with the international best practises (Yek, 2022). The lack of systematic empirical studies focusing on the effectiveness of risk management in Saudi private hospitals was a knowledge gap that hindered the development of evidence-based policies and organisation decision-making (Dixon, 2021). The awareness of how the risk management practises impacted patient care provision outcomes was still critical to maximising resource distribution, focusing on improvement efforts, and attaining sustainable patient care provision (Hasiu et al., 2025).

The research problem used by this study was to explain the connexion between the implementation of risk management and healthcare quality improvement in Saudi private hospitals. Although the importance of risk management was theoretically agreed upon, empirical findings of actual differences it brought on quantifiable quality measures were less common, especially in the Saudi setting (Suthiram & Naidoo, 2025). Healthcare administrators demanded tangible information that showed which particular risk management dimensions had the most impact on quality of outcomes so that specific interventions would be used to maximise the return on investment (Plebani & Chiozza, 2006). Besides, the complexity of healthcare quality required the study of impacts of risk management in various areas such as clinical effectiveness, patient safety, operational effectiveness and the leadership of an organisation (Hughes, 2008). The study attempted to fill

in these gaps of knowledge by exploring the use of risk management practises on key performance dimensions in Saudi private hospitals in a systematic manner.

The primary objective was to examine the impact of risk management on healthcare quality improvement in Saudi private hospitals through comprehensive analysis of empirical data collected from healthcare professionals. The research assessed the degree to which risk management practices influenced leadership and governance effectiveness, environmental health and safety standards, and overall healthcare quality as perceived by clinical and administrative personnel.

The research aimed to identify the relative importance of different risk management dimensions in driving quality improvements, thereby providing actionable insights for hospital administrators and policymakers. By establishing empirical evidence regarding these relationships, the research sought to contribute to theoretical understanding of risk management effectiveness while simultaneously offering practical guidance for healthcare organizations pursuing quality enhancement initiatives.

2. Literature Review

2.1 Previous Studies on Risk Management and Healthcare Quality

Modern studies invariably showed favourable correlations between the execution of risk management and health quality outcomes (Hardy, 2025). Investigation by Hardy (2025) indicated that strategies of effective risk management have played a role in mitigating negative events and patient satisfaction because of better safety cultures and standardised operating procedures (Hardy, 2025). The study focused on the importance of establishing conditions that helped medical workers feel the opportunity to report, with no fear of punitive measures, as a key condition of organisational learning and perpetual enhancement (Sheridan et al., 2021). Evidence on the issue of medical error prevalence in international practise contributed to the urgency of the implementation of the effective risk management strategies. Researchers at Johns Hopkins University reported that medical errors were the third-most common cause of death in the United States, outsmarted only by heart disease and cancer, and showed that there were constant weaknesses that could be overcome with the help of systematic risk management (Yek, 2022). These fears were supported by Australian studies, which found that about 11 % of patients treated in hospitals had complications during care episodes,

with half of those considered avoidable with the help of better safety measures (Yek, 2022). A study performed in university hospitals showed that an effective risk management system was able to detect the risks that may occur, and they turned into adverse events, thus allowing proactive response (Buchberger et al., 2024). Also, studies of resource-constrained healthcare settings found that even with resource-constrained environments, optimised clinical governance and risk management strategies could be effective in improving the quality of care, implying that systematic management processes provided cost-effective avenues to quality improvement (Suthiram & Naidoo, 2025).

2.2 Research Gap

Although there was a significant literature on the theoretical significance of risk management, an essential gap remained on the extensive empirical studies in Saudi-based private hospitals (Hasiu et al., 2025). Existing studies were mostly concentrated on Western health care models or governmental hospitals, and it was not clear whether the results can be applied to the Saudi context of private healthcare that has quite different organisational models, regulation, and cultural conditions (Dixon, 2021). Moreover, it is also common that the available literature studied risk management as a unidimensional concept, instead of exploring the dissimilar impacts of certain dimensions on different quality outcomes (Plebani & Chiozza, 2006). This deficiency of specific knowledge restricted the capacity of healthcare administrators to place special emphasis on aspects in resource allocation (Qualityze, 2025). The current study filled these gaps with the elaborate analysis of risk management dimensions and their effects on various healthcare quality indicators in Saudi private hospitals, which produced context-specific evidence to drive policy formulation and organisational decision-making (Dixon, 2021; O'Shea & Nix, 2015).

2.3 Theoretical Framework

The theoretical background relied on the Plan-Do-Study-Act cycle proposed by Deming, who assumed that the process of continuous improvement was the outcome of systematic problem identification, intervention implementation, evaluation of results, and process improvement (Hughes, 2008). The framework integrated the theory of high-reliability organisation, which investigated how complicated systems ensured safety even when exposed to extreme risk environments (Sheridan et al.,

2021). This school of thought focused on the organisational culture, dedication of leadership to leadership, standardised process, and ongoing learning to stop the occurrence of adverse events (Hughes, 2008). Additional grounding was given by organisational performance theories, which suggested that an increase in strategic goals could be achieved by systematic management processes related to better resource allocation, greater accountability, and better coordination of operations (Chassin, 2013; Plebani & Chiozza, 2006). These theoretical processes formed the basis of empirical research on the effects of risk management on healthcare quality aspects (McGowan et al., 2025).

2.4 Conceptual Framework

A conceptual model was created to show connections among risk management and healthcare performance aspects (Figure 1). The independent variable was risk management, which was measured in three dimensions, including leadership and governance, environmental health and safety practises, and systematic risk management processes. The dependent variable was healthcare quality, which included clinical effectiveness, diagnostic accuracy, care comprehensiveness, patient satisfaction, and service delivery excellence. The framework presupposed a direct impact of every dimension of risk management on the outcomes of healthcare quality.

Figure 1 shows, the three risk management dimensions were functioning as intertwined parts that needed synchronised efforts at different organisational levels. The strategic dimension was leadership and governance which included executive commitment and accountability structures. The operational dimension was environment health and safety, which addressed maintenance and safety measures to the infrastructure. Procedural dimension was represented by systematic risk management processes which involved the identification of hazards and mitigation planning (McGowan et al., 2025).

2.5 Hypotheses Development

Three hypotheses were developed based on the theoretical framework and empirical evidence. H1: Risk management can greatly affect leadership and governance performance in hospitals. This was a hypothesis according to which the quality of leadership decisions and the quality of accountability mechanisms were improved after the implementation of systematic risk management. H2: Risk

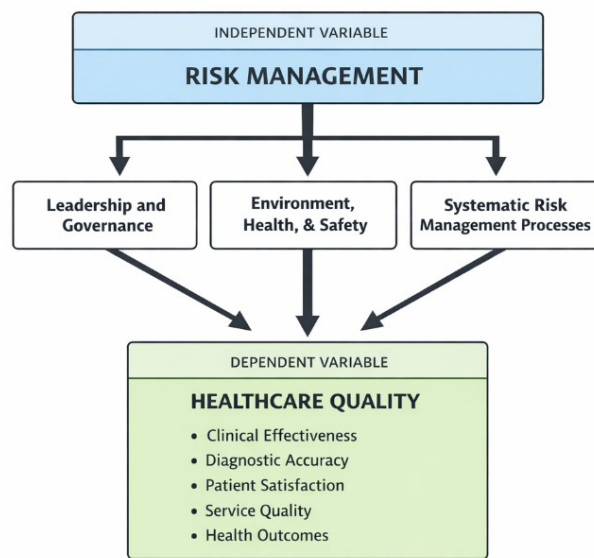


Figure 1: Conceptual Framework

management has a significant impact on environment, health and safety standards in hospitals. This hypothesis was that the overall risk management practise enhanced facility maintenance practises, infection control processes, and workplace safety conditions. H3: Risk management has a significant effect on the overall healthcare quality of hospitals. This hypothesis claimed that the implementation of risk management improved clinical effectiveness, diagnostic accuracy, patient satisfaction, and efficiency of service delivery due to systematic identification and resolution processes of problems

3. Methods

3.1 Research Design and Setting

The study was conducted using a cross-sectional design with descriptive-analytical research methodology. The study was carried out in the private hospitals in Saudi Arabia and was directed at healthcare professionals who have personal knowledge of quality indicators and risk management practises.

3.2 Participants and Sampling

The sample size consisted of 193 healthcare professionals who represented various clinical and administrative domains. The sample had a high level of education with 83.5 % of them having Masters or Doctoral degrees. Age composition showed 55.4 % of those above 40 years and professional experience showed 53.4 % of those above 10 years of employment in healthcare. It was mostly male (79.3 %).

3.3 Data Collection Instrument

The structured questionnaire was used to collect data that was a measure of the risk management dimensions and the perceptions of healthcare quality. It consisted of sections dealing with demographics (5 items), leadership and governance (5 items), environmental health and safety (5 items), systematic risk management processes (5 items), and healthcare quality indicators (9 items). Measurements were made on five-point Likert scales.

3.4 Procedures and Analysis

Questionnaires were administered by electronic and paper-based methods with institutional consent and approval of the questionnaires. Descriptive statistics (frequencies, percentages, mean, standard deviations) were used to analyse data to describe the composition of the sample and summarise the nature of responses. Research hypotheses were tested through Analysis of Variance (ANOVA) based on whether statistically significant difference existed in quality outcomes. Alpha was set to 0.05 and the F-statistics and p-values were computed.

4. Results

4.1 Demographic Characteristics

Table 1 shows the socio-demographic information of healthcare professionals. The sample was dominated by males (79.3) whose educational background was outstanding with 83.5 % having advanced degrees. Most (55.4) of them were more than 40 years old and had extensive experience in their profession, with 53.4 years stating that

they have been employed in healthcare for more than 10 years. This age group showed mature specialists who had advanced knowledge about organisational procedures and quality management principles. Response validity

and reliability was strengthened by the concentration of advanced degree holders. The gender disparity was a continuation of practises in healthcare leadership in Saudi.

Table 1: Demographic Characteristics

Variable	Category	Frequency	Percentage (%)
Gender	Male	153	79.3%
	Female	40	20.7%
Education	Diploma or lower	6	3.1%
	Bachelor's	26	13.5%
	Master's	81	42.0%
	Doctorate	80	41.5%
Age	Under 30	16	8.3%
	30-39	70	36.3%
	Over 40	107	55.4%
Experience	Under 5 years	28	14.5%
	5-10 years	62	32.1%
	Over 10 years	103	53.4%

4.2 Leadership and Governance Dimension

The descriptive statistics of leadership and governance dimension are presented in Table 2. The dimension showed consistent levels of agreement with an average of 4.39. The highest rate was on staff performance evaluation (M=4.45) and decision maker ability of leaders (M=4.43) and strategic planning (M=4.39). Clear policies

had the highest score of 4.35, and transparency had the lowest score of 4.33 though in a high range of agreement. Small SDVs reflected strong agreement among the respondents on the issue of leadership effectiveness in risk management areas. These findings indicated that there is high organisational commitment towards risk management at strategic level.

Table 2: Leadership and Governance Descriptive Statistics

Item	Mean	SD	Rank
Staff performance evaluated periodically	4.45	0.865	1
Leaders capable of sound decisions	4.43	0.814	2
Clear strategic plans in place	4.39	0.854	3
Clear policies and procedures	4.35	0.930	4
Leaders transparent in decisions	4.33	0.908	5
Overall Average	4.39	0.041	

4.3 Environment, Health, and Safety Dimension

Table 3 shows the descriptive statistics of environment, health, and safety dimensions. This dimension achieved the highest average in general (M=4.46) out of three risk management components. The highest scores (M=4.50) were registered in facility maintenance and equipment sterilisation, which means that basic safety preconditions are a priority. The third-ranked one was

environmental risk assessment (M=4.48), then renewable energy use (M=4.45). The lowest score (M=4.37) but still in high agreement range was medical waste disposal. The constant low standard deviations showed high levels of consensus on the implementation of environmental safety protocols in the participating institutions.

Table 3: Environment, Health, and Safety Descriptive Statistics

Item	Mean	SD	Rank
Facilities regularly maintained	4.50	0.751	1
Equipment regularly sterilized	4.50	0.751	2
Environmental risks assessed	4.48	0.715	3
Renewable energy used	4.45	0.790	4
Medical waste disposed safely	4.37	0.839	5
Overall Average	4.46	0.047	

4.4 Risk Management Dimension

Table 4 illustrates that dimension reflected a general average of 4.42, which is a strong demonstration of the core process implementation. Risk identification topped the list (M=4.46), then continuous monitoring (M=4.45) and staff training (M=4.42). The mitigation measures were rated at

4.41, whereas risk impact assessment was lowest (M=4.35) though it was in the high agreement range. Small standard deviations showed an agreement on the implementation of systematic risk management. These findings proved that hospitals had adopted proactive, systematic ways of identifying, assessing, and reducing risks.

Table 4: Risk Management Descriptive Statistics

Item	Mean	SD	Rank
Risks identified periodically	4.46	0.829	1
Risks monitored continuously	4.45	0.796	2
Staff trained in risk management	4.42	0.875	3
Measures taken to mitigate risks	4.41	0.868	4
Risks assessed and impact determined	4.35	0.919	5
Overall Average	4.42	0.047	

4.5 Healthcare Quality Dimension

Table 5 shows descriptive statistics of the outcomes of healthcare quality using nine items. The dimension has recorded high performance with a total average of 4.45. The highest scores were met by diagnostic accuracy and service effectiveness (M=4.51) which means risk management practises did not stop avoiding adverse outcomes but were aimed at improving clinical performance. The third highest ranking was on patient satisfaction measurement (M=4.48), then comprehensive care and educational programmes (both M=4.46). The highest score of 4.45 on privacy respect was followed by quality improvement 4.44, technology use 4.41, and continuous monitoring with the lowest score of 4.37, albeit at the high-agreement range.

4.6 Hypothesis Testing Results

Table 6 shows ANOVA findings of the effects of risk management on three dimensions. Statistical tests indicated that all hypothesised relationships had significant F-values ($p < 0.001$) which gives strong empirical evidence

to accept research hypotheses. The relationship between leadership and governance was $F=19.788$, environment health and safety $F=20.614$ (strongest relationship), and healthcare quality $F=16.092$. It was significantly larger between groups sum of squares than within groups variance in all dimensions. These findings validated that the systematic adoption of risk management had a great impact in improving the leadership performance, safety of the environment, and the quality of healthcare in Saudi private hospitals.

5. Discussion

The empirical data were strong evidence that risk management had positive effects on various healthcare quality themes of Saudi private hospitals. Statistically significant correlations detected in tests of ANOVA proved that the implementation of systematic risk management was associated with the increased quality of leadership effectiveness, improved environmental safety standards, and higher overall healthcare quality (Buchberger et al.,

Table 5: Healthcare Quality Descriptive Statistics

Item	Mean	SD	Rank
Patients receive accurate diagnoses	4.51	0.638	1
Effective services provided	4.51	0.693	2
Patient satisfaction measured	4.48	0.811	3
Comprehensive care provided	4.46	0.750	4
Educational programs provided	4.46	0.750	5
Services respect privacy and culture	4.45	0.871	6
Quality improved via feedback	4.44	0.783	7
Latest technologies used	4.41	0.921	8
Patients monitored continuously	4.37	0.826	9
Overall Average	4.45	0.087	

Table 6: ANOVA Results

Dimension	Source	Sum of Squares	df	Mean Square	F	Sig.
Leadership & Governance	Between Groups	1774.528	29	61.191	19.788	.000
	Within Groups	504.052	163	3.092		
Environment, Health & Safety	Between Groups	1462.253	29	50.423	20.614	.000
	Within Groups	398.710	163	2.446		
Healthcare Quality	Between Groups	1813.650	29	62.540	16.092	.000
	Within Groups	633.480	163	3.886		

2024; Hardy, 2025). These findings were consistent with the current theoretical models suggesting that management processes guided by structure brought quantifiable changes in the organisational performance via systematic problem identification, uniform intervention procedures, and ongoing monitoring systems (Hughes, 2008; Plebani & Chiozza, 2006). Moreover, the average scores in all the dimensions measured were very high, which indicated that involved Saudi hospitals had experienced significant progress in risk management maturity, beyond the minimum compliance expectations to adopt holistic quality improvement ideologies (Hasiu et al., 2025).

The importance of executive commitment and the presence of effective organisational infrastructure in effective risk management implementation was highlighted by the strong statistical correlation between risk management and leadership and governance ($F=19.788, p<0.001$) (Keddy et al., 1988; Sheridan et al., 2021). This observation supported the evidence on the importance of leadership participation as a condition to setting up safety cultures where healthcare professionals were empowered to recognise hazards and

report unfavourable events without the fear of punitive actions (Hardy, 2025). The mean scores of the items that measured strategic planning, transparency of policy, and the quality of decision-making were high, which indicated that Saudi hospital leaders perceived risk management as a strategic issue that required to be allocated resources and permanent focus. These observations were supported by a recent study conducted by Hardy (2025), which showed that organisations where leaders are committed to safety reported the best patient satisfaction rates and low rates of adverse events compared to those where the executives are not involved (Hardy, 2025).

The remarkable association between the risk management and the environment, health and safety standards ($F=20.614, p<0.001$) was an indication of the operational aspect of quality improvement, where systematic operations were translated into physical changes of infrastructure as well as infection control and physical safety of the workplace (Sibinga, 2001). Facility maintenance and equipment sterilisation high scores were indicative of the fact that the participating hospitals were focused on core safety

requirements that avoided healthcare-associated infections and equipment-related complications. These results were consistent with studies by Buchberger et al. (2024) that found that multifaceted clinical risk management protocols were effective in identifying hazards related to treatments prior to them occurring into patient injuries (Buchberger et al., 2024). The periodicity of environmental risk assessment practises reported by the respondents matched the appeal of the international safety organisations that proposed the possibility of identification of potential hazards through the systematic inspection of facilities and monitoring of the environment (Yek, 2022).

The main hypothesis was confirmed by the fact that the substantial effect of risk management on the overall quality of healthcare ($F=16.092$, $p<0.001$) was produced by the systematic risk reduction initiatives that led to the measurable improvement in patient care outcomes (Chassin, 2013; Hughes, 2008). The scores of diagnostic accuracy and service effectiveness were high, which meant that risk management practises were not limited by the prevention of negative outcomes but were also focused on the active improvement of clinical performance and patient experience. The conceptualization of the risk management as a system of both clinical and administrative processes developed by McGowan et al. (2025) as a theoretical framework explaining all these multifaceted effects (McGowan et al., 2025). The mechanisms of constant quality improvement manifested by the perceptions of the respondents implied that the involved hospitals were organisations of learning, where patient feedback and the outcome data were used to correct the care delivery principles in a cyclic fashion (Dixon, 2021).

The demographic traits of the research sample provided valuable contextual factors on how to interpret the findings (Koh & Owen, 2000). The fact that the composition was mostly male supported gender disparities that still exist in healthcare leadership in the Saudi environment. The high level of educational attainment, 83.5 % of whom had high degrees, indicated that the respondents had high-level knowledge of quality management concepts, which may increase the validity of the responses, and restrict the applicability to other institutions with lower-education workforces (Ranganathan & Caduff, 2023). The mature age profile and the extensive experience in the professional field meant that perceptions of the respondent were based on the accumulated observations of various organisational situations and stages of evolution of Saudi healthcare development (Hasiu et al., 2025).

The international research showed similarities and situational differences in the patterns of risk management implementation (O'Shea & Nix, 2015; Yek, 2022). The relevance of effective risk management irrespective of the sophistication of the healthcare system was reinforced by the patient safety issues reported by the Johns Hopkins researchers, who found medical errors to be the third largest cause of mortality in the United States (Yek, 2022). The Australian study that reported 11 % adverse events rates of hospitalised patients also revealed that advanced healthcare systems still had significant amounts of avoidable harm (Yek, 2022). Nevertheless, the large average scores recorded in this study implied that Saudi private hospitals may have reached the risk management maturity levels higher than those recorded in certain overseas settings, which may be attributable to the relative recentness of the development of the private healthcare infrastructure that enabled the adoption of modern best practises (Buchberger et al., 2024; Hasiu et al., 2025).

These findings had theoretical implications that went beyond short-term practical implications to guide expansive knowledge of quality improvement mechanisms in healthcare settings (Chassin, 2013; Hughes, 2008). The findings of the research were consistent with the organisation learning theory postulates that the regular data gathering, analysis, and feedback mechanisms produced a continuous improvement in organisational practise (Hughes, 2008). The meaningful correlations among risk management and various performance areas confirmed the system theories views which underline the links among organisational processes where positive changes caused in one dimension triggered positive changes in other domains (Plebani & Chiozza, 2006). Moreover, the results supported the principles of high-reliability organisation, where conscious awareness to possible failures, lack of simplification of interpretations, awareness to operations, commitment to resiliency, and respect to expertise all led to the improvement of safety and quality in complex settings (Sheridan et al., 2021).

The practical healthcare administrators' implications included a range of strategic and operational ideas (Dixon, 2021; Qualityze, 2025). The powerful leadership and governance impact first suggested the obligation of getting the executive buy-in and building clear responsibility frameworks of risk management programmes (Hardy, 2025; Keddy et al., 1988). Second, the results of the environmental safety highlighted the value of having effective facility management procedures and periodically

performing hazard evaluations (Buchberger et al., 2024). Third, the systematic risk management process outcome highlighted the usefulness of well-structured methods in identifying, assessing, mitigating, and monitoring risks (McGowan et al., 2025). Fourth, the fact that healthcare quality outcomes justified the multidimensionality of quality improvement meant that the simultaneous focus on clinical effectiveness, patient safety, patient-centeredness, and operational efficiency was facilitated (Chassin, 2013; Hughes, 2008).

Combination of these results and available quality improvement models provided opportunities to convert the research findings into practical organisational action programmes (Hughes, 2008; O'Shea & Nix, 2015). The Six Sigma approach where data-driven improvement of processes was emphasised was consistent with the research finding that systematic risk assessment and monitoring resulted in quality improvement (Plebani & Chiozza, 2006). The principles of lean that emphasised on waste removal and streamlining of workflows supplemented risk management goals that minimised needless process variation that opened chances of error (Hughes, 2008). Plan-Do-Study-Act rapid-cycle improvement strategies offered ways of testing risk reduction interventions on small scales prior to full implementation (Hughes, 2008). These methodologies converging with the principles of risk management implied that healthcare organisations ought to strive to implement an integrated solution that would involve both hazard reduction and proactive improvement of performance (Chassin, 2013; Plebani & Chiozza, 2006).

6. Conclusion

This study highlighted that risk management had tremendous positive effects on healthcare quality of Saudi private hospitals in terms of leadership and governance, environment, and quality dimensions. All three hypotheses were confirmed by empirical evidence which found out that systematic risk management contributed to better organisational performance by promoting an improved executive decision-making process, enhanced safety measures, and improved patient care outcomes. The similarity in the levels of implementation indicated that the Saudi private healthcare institutions had adopted holistic risk management philosophies beyond regulatory compliance. These results confirmed theory propositions that the well-organised management activities produced quantifiable organisational improvements via regular problem recognition and ongoing observation to benefit

academic knowledge and practitioner recommendations to healthcare administrators

7. Limitations And Strengths

The study had methodological strengths such as large sample size ($n=193$), broad organisational representation, and validated measurement scales that guaranteed construct validity. Nevertheless, constraints deserved attention. The cross-sectional design could not be used to infer causality in terms of time between risk management and quality improvements. The sample size was predominantly male (79.3), which restricted the generalizability to female healthcare professionals whose views may have been different. The use of self-reported perception as opposed to objective indicators of quality created potential bias in responses. The study was narrowly committed to Saudi private hospitals, restricting its applicability to institutions in the public sector. Future studies using longitudinal designs, even-gender samples, objective measures of performance, and comparative public-private studies would solve these shortcomings.

8. Further Research

Future research must take several directions to advance knowledge about the effectiveness of risk management. Different longitudinal research designs that track organisations prior to the implementation and after risk management would allow stronger causal inferences and optimal implementation timelines. Relative research comparing the success of public and private hospitals would shed light on industry-specific determinants of implementation. Mixed-method methodologies that include both qualitative interviews and quantitative surveys would offer more information on how risk management affects organisational culture. Best practises, which can be transferred to other healthcare systems, and contextual factors that need local interpretation would be determined in international comparative research. Research studies focusing on individual risk management instruments and their varying degrees of efficacy would inform resource utilisation by establishing the most impactful interventions.

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