

عنوان البحث

**Research Title: The Impact of Organizational Culture on the Effectiveness of Risk
Management among Health Care Workers in King Faisal Specialist Hospital &
Research Centre**

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مقدمة:

Healthcare institutions face increasing challenges, making risk management a vital pillar for ensuring patient safety and service quality. Although many hospitals implement official policies, the real effectiveness often hinges on staff behavior and organizational culture. A lack of a supportive culture may hinder risk management efforts, especially if error reporting is discouraged or procedures are not followed consistently. Healthcare workers' understanding of patient safety as a fundamental goal in healthcare delivery is essential for genuine safety improvements. Research demonstrates that robust, positive safety cultures significantly enhance patient outcomes by reducing adverse events within healthcare organizations. The way staff perceive and prioritize safety directly influences the effectiveness of safety initiatives and protocols.

مشكلة الدراسة:

Several studies have focused on patient safety culture in different regions of Saudi Arabia, yet little work has been done in King Faisal Specialist Hospital & Research Centre (KFSHRC), despite its prominence as the top-ranked medical institution in the Middle East. As a hospital recognized among the "World's Best Smart Hospitals 2025" for technological excellence and ranked 20th globally among Academic Medical Centres, understanding its organizational culture's impact on risk management is critically important. This research addresses a significant gap in knowledge about how a leading healthcare institution with advanced AI, robotics, and telemedicine capabilities integrates risk management into its organizational fabric. The findings will be particularly valuable as KFSHRC serves as a benchmark for healthcare excellence in alignment with Saudi Vision 2030 initiatives and influences standards across the region.

أهمية الدراسة:

This research addresses a critical knowledge gap regarding the risk management culture at King Faisal Specialist Hospital & Research Centre (KFSHRC), the Middle East's premier healthcare institution. Despite KFSHRC's global recognition for technological excellence, limited research exists on how its organizational culture influences the effectiveness of risk management among healthcare workers. As a world-ranked hospital supporting Saudi Vision 2030 healthcare transformation goals, understanding KFSHRC's risk culture is vital for maintaining its exemplary standards. The findings will provide valuable insights for hospital leadership on strengthening risk management practices, enhancing patient safety, optimizing the integration of advanced technologies with human factors, identifying

cultural barriers to risk reporting, and developing targeted educational interventions that align with the institution's strategic goals and international best practices.

أهداف الدراسة:

- 1-Assess the level of risk management culture among healthcare workers in King Faisal Specialist Hospital & Research Centre (KFSHRC).
- 2-Analyze the relationship between organizational culture and effective risk management practices within KFSHRC.
- 3-Provide actionable recommendations to strengthen the risk culture in KFSHRC as a leading healthcare institution in the Middle East.

تساؤلات الدراسة

- 1-What is the level of staff awareness of risk management culture among healthcare workers in King Faisal Specialist Hospital & Research Centre (KFSHRC)?
- 2-Is there a statistically significant relationship between organizational culture and effective risk management among healthcare workers within KFSHRC?
- 3-What factors influence the development of a risk management culture among healthcare workers in KFSHRC as a leading healthcare institution in the Middle East?

فروض الدراسة:

Study Aim

The aim of this study is to assess risk management culture among healthcare workers at King Faisal Specialist Hospital & Research Centre (KFSHRC), and to analyze the relationship between organizational culture and effective risk management practices in comparison to international benchmarks.

Measurement: Survey on Risk Management Culture

The validated survey instrument will contain approximately 40 items measuring across 12 dimensions of risk management culture. These dimensions will assess perceptions about organizational support for risk management, communication about risks, leadership

commitment, reporting systems, and other key aspects of risk culture. The survey will be designed to capture both quantitative metrics and qualitative insights from participants.

Statistical Analysis

The unit of measurement in our study is the healthcare worker population at King Faisal Specialist Hospital & Research Centre (KFSHRC). We will use a validated survey instrument to collect data on risk management culture perceptions. The data will be analyzed through three key processes:

Firstly, we will provide a comprehensive description of data set including frequencies, percentages, means, and standard errors for all variables related to risk management culture dimensions and demographic characteristics.

Secondly, we will test the distribution of each predictor variable (demographic factors, professional roles, departments, years of experience) against the dependent variables (risk management culture dimensions) by using bivariate analysis. For categorical variables, chi-square tests will be employed, while for continuous variables, ANOVA or t-tests will be used as appropriate.

Thirdly, we will conduct multivariate regression analysis to determine factors significantly associated with risk management culture perceptions while controlling for potential confounders. Regression coefficients and 95% confidence intervals (CIs) will be calculated to quantify the strength of associations.

Data analysis will be performed using SPSS Statistics software, Version 28. All statistical tests will be two-sided, with a p-value <0.05 considered statistically significant. Factor analysis may also be employed to identify underlying dimensions of the risk management culture specific to the KFSHRC context.

الدراسات السابقة:

Patient safety culture in a tertiary care hospital in Makkah, Saudi Arabia, a cross-sectional study

Crossref DOI link: <https://doi.org/10.1186/s12913-024-11310-7>

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المنطلقات النظرية للدراسة:

This study is based on two key theoretical foundations:

Organizational Culture Theory

This theory suggests that the shared values, beliefs, and norms within an organization significantly influence employee behavior and attitudes. In healthcare, a positive culture can promote open communication, teamwork, and commitment to safety—all of which are critical for effective risk management. The theory supports the idea that culture shapes how staff perceive, report, and respond to risks.

Systems Theory in Risk Management

According to systems theory, organizations are complex systems where different parts must work together efficiently. In this context, risk management is not just a technical system but a social process involving people, processes, and culture. Effective risk management depends on how well the system adapts to feedback, learns from errors, and involves staff in improvement processes.

By combining these two perspectives, the study will analyze how internal cultural elements affect the functioning of risk management systems in hospitals.

المنهجية وطرق البحث:

Study Design and Study Population

This will be a cross-sectional study utilizing a validated survey instrument to measure the risk management culture in healthcare settings. The survey will be distributed at KFSHRC from July to October 2025. All healthcare professionals working during the survey period will be invited to participate, without exclusions.

Sample Size

After collecting the necessary statistics related to the healthcare worker population at King Faisal Specialist Hospital & Research Centre (KFSHRC), the sample size for this cross-sectional study will be determined using the formula for a finite population:

$$n = Z^2 1-\alpha/2 \times P(1-P) / d^2$$

Where:

- n = required sample size
- Z = confidence level at 95% (standard value of 1.96)
- P = expected proportion of healthcare workers with awareness of risk management culture (assumed as 0.5 to maximize sample size)
- d = degree of precision (margin of error) = 0.05 (5%)

Using the online calculator at <https://www.calculator.net/sample-size-calculator.html> with a 95% confidence level, 5% margin of error, and population proportion of 0.5:

The minimum sample size result is 384 healthcare workers. Accounting for an anticipated non-response rate of 10%, we estimate that 423 study subjects will be needed for this study.

أدوات الدراسة:

A survey adapted from AHRQ's Hospital Safety Culture tool, with added questions on culture and risk

حدود الدراسة:

Location: A public hospital in Saudi Arabia.

Time: Current academic semester.

Participants: Healthcare staff only.

Key Terms:

- Organizational Culture: Shared values and behaviors influencing staff interaction with systems.
- Risk Management: Systematic processes for identifying, analyzing, and reducing risks.
- Risk Management Effectiveness: The institution's success in minimizing errors and improving performance.

Initial References:

1. ISO 31000 Risk Management Guidelines
2. AHRQ Hospital Survey on Patient Safety Culture
3. Reason, J. (1997). Managing the Risks of Organizational Accidents
4. WHO – Patient Safety Resources
5. Other academic sources

