



## THE EFFECTIVENESS OF IMPLEMENTING RISK MANAGEMENT FRAMEWORKS IN HEALTHCARE ORGANIZATIONS

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### Abstract

This study aimed to provide a framework and effective strategies for integrating risk management (RM) in executive levels of healthcare organizations (HCOs) and identifying potential areas for future research in this sector. A comprehensive evaluation was done to examine all papers written in English language and available in the major bibliographic databases. Two impartial reviewers conducted the review selection and characterisation using pretested forms. A thorough and straightforward risk management framework is established for the executive levels of HCOs, based on the results and in accordance with the ISO31000 standard. The process consists of five primary stages: context establishment, risk assessment, risk treatment, monitoring and review, and communication and consultation. Furthermore, a collection of tools and strategies were proposed for implementation throughout each stage. The suggested methodology was used to assess the state of risk management in the executive levels of HCOs. The framework serves as a training tool for successful risk assessment and also as a tool for evaluating non-clinical hazards in healthcare organizations. Healthcare organization managers should use a variety of risk management techniques and tools to assure high quality. They should choose these methods and tools based on their specific needs and should not assume that any one tool is all-encompassing.

**Keywords:** organization, risk management, review, risk analysis, health care, executive levels.

### 1. Introduction

According to the World Health Report (2000), healthcare organizations (HCOs) have become more important in discussions about global health. 1 However, during the last ten years, healthcare organizations (HCOs) have encountered two conflicting situations: firstly, healthcare



expenses have risen as a result of the aging population, the use of sophisticated technology, and an increase in medical mistakes.<sup>1, 2,3</sup> However, HCOs have gotten more intricate as a result of elements such as demanding clients, advancements in biomedicine, the intricacy of services, and a growing quantity of healthcare consumers.<sup>2,3</sup> Consequently, there is a substantial disparity between the demand for healthcare and the limited human capability and resources in healthcare departments. <sup>4</sup> Three interventional techniques have been established at different levels of the healthcare organizations (HCOs) to address these limits: quality management, risk management, and patient safety. <sup>5</sup>

Risk management (RM) is a systematic approach that offers a well-organized framework for recognizing, evaluating, and mitigating risk at suitable intervals for healthcare organizations (HCOs).<sup>6</sup> The risk management strategy safeguards healthcare professionals from adverse occurrences. <sup>7</sup> RM significantly contributes to reducing uncertainty and maximizing possibilities in several sectors of the healthcare system. The development of Root Cause Analysis (RCA) aids healthcare organizations (HCOs) and providers in mitigating harm caused by potential flawed procedures by detecting errors, determining their underlying causes, and devising strategies for improvement. Implementing Resource Management (RM) in Healthcare Organizations (HCOs) enhances the efficient distribution of health resources, optimizes process management and decision-making, minimizes organizational losses, enhances patient safety, promotes continuous quality improvement, boosts customer satisfaction, improves organizational performance, enhances hospital reputation, and fosters better community engagement. <sup>2</sup>

Prior to executing the risk process, it is necessary to establish a comprehensive framework for risk management. This framework establishes the organizational approach for detecting, assessing, and mitigating risks. <sup>13</sup> This approach provides a clear framework for the implementation of the RM process throughout the business. The process includes identifying the necessary resources, defining the essential roles and duties, and establishing the methods for risk identification. It illustrates the appearance of the decision-making process while using such tactics. According to <sup>13</sup>, the current research indicates that while there are many approaches for resource management (RM), only a small number of them have been used in healthcare organizations (HCOs) so far. <sup>14-16</sup>

## **2. Risk management**

Risk management is a growing field in management systems. While there are many reports that give an overview of risk management in healthcare organizations (HCOs), it is challenging to find studies that have systematically combined risk management models at the executive levels of healthcare organizations. <sup>17,19</sup> This sector lags far behind the rest of the industry in terms of adopting and implementing these strategies. Currently, there is a widespread agreement in the healthcare industry that the knowledge, experience, and skills from other industries in risk management may enhance the quality of services offered in healthcare. <sup>3</sup> Hence, it is essential to evaluate the range of risk management approaches. These instruments must be customized to

accommodate the intricacies of the healthcare system and the underlying factors contributing to events in this industry. 20, 21

The healthcare system's organizational structure is divided into three categories: executive, administrative, and operational. Each category is susceptible to certain dangers. 22 This research has a specific focus on identifying the dangers that occur at the executive levels. The research excludes the examination of potential hazards that may occur at the operational levels of healthcare organizations and may be classified as clinical risks. It is important to note that the executive levels of healthcare organizations refer to the main offices and deputies of the HCOs, who are responsible for providing guidance and oversight to healthcare delivery units. 22 Hence, the objective of this study is to examine many existing organizational risk management (RM) models, assess the merits and drawbacks of each model, and consequently, provide a framework for adopting RM at the executive levels of healthcare organizations (HCOs).

The primary objective of this study was to consolidate and synthesize current research on the several stages of the risk management cycle (risk identification, risk assessment, and risk management). The final aim was to establish a consolidated knowledge repository that can be used for future research in the higher levels of healthcare organizations. The executive levels of HCOs consist of the headquarters and deputies who are responsible for providing guidance and oversight to healthcare delivery units.

### **3. Identified Organizational Risks at Executive Levels in Healthcare Organizations**

Identifying risks is often a prerequisite for subsequent risk management.<sup>23</sup> In the context of dynamic and complex healthcare organizations, several risk sources have the ability to initiate hazardous scenarios that might possibly cause damage to the organization. It is crucial to include a wide range of risk sources in a categorization in order to let participants get comfortable with the system and potential sources of danger. 24 While the research design did not specifically target risk categories in healthcare organizations, the analyzed papers extensively examined and discussed several common hazards seen in comparable healthcare organizations.

The study conducted by Simsekler et al. used the Risk Identification Framework (RID Framework) to identify hazards inside health organizations. 17 The risk identification framework comprises a range of inputs (system familiarization), procedures (risk identification), and outputs (risk presentation) within its structure.

### **4. The implementation of the RM framework and techniques at executive levels of healthcare organizations**

A rigorous risk management strategy may help top-level executives of healthcare organizations effectively deal with the dangers discussed in the preceding section. After identifying hazards, many strategies and actions may be chosen to deal with them. Organizations have used various models to evaluate and control risk, with corresponding outcomes. The results indicate that the risk management framework applicable to the executive levels of HCOs may be

categorized into basic models and combination models. Furthermore, risk management methods are categorized based on their cost, duration, and complexity. Risk management models may be categorized into qualitative or quantitative, systemic or individual, retrospective or prospective, and holistic or partial methods.

## 5. Identification of Risks

The findings indicate that there are several approaches available for identifying high-risk procedures that may be used by executives in healthcare organizations, based on their specific requirements. A concise and detailed exposition of the textual system, which pertain to the activity breakdown structure (ABS), radar maps, and flow charts 8,25,26,27.

Process description tools may be broadly categorized into two groups: descriptive tools and process tools. Radar charts, also known as Kiviat diagrams, were created to visually represent the initial and residual hazards associated with each kind of procedure. 28 ABS is characterized by a focus on processes rather than products, and it does not include a time dimension. 8 A task diagram is used to depict the hierarchical structure of operations and plans, while system mapping illustrates the flow of data via activities. Information diagrams are used to depict information hierarchies, while organizational diagrams are used to illustrate the hierarchy of organizational roles. Communication diagrams are used to display the flow of information between individuals, and Business processes and IDEF are used to establish links between inputs and outputs in organizational activities and resources. Sequence diagrams are used to depict the interaction of information between stakeholders.

Cagliano et al's study found that the flow chart contained the names or codes of the process phase and activity, the actors responsible for performing the activity, the inputs required (such as information, materials, preliminary actions, and orders), a thorough description of the operations needed for the activity, the duration and frequency of the activity, controls to track the progress of the activity, the tools necessary for both the activity and the related controls, and the outputs produced (including other activities, information, and data). 8 In Parand et al's research, activities in the flow chart were categorized according to action, retrieval, checking, selection, information, and communication. 28 Generally, a more comprehensive description of the process may lead to more impactful conclusions in the risk assessment. Simsekler et al. (17) and Jun et al. (29) found that stakeholders preferred some kinds of diagrams over others for recognizing various sources of hazards in a particular system. Typically, workers consider perception, convenience of use, and utility as the primary factors while selecting the most ideal system modeling tool.

RM methodologies and metrics posed challenges when it came to comparing and evaluating the performance of executives in healthcare organizations (HCOs). The optimal choice is the one that produces the most anticipated value. The interventions are ranked based on two criteria: their effectiveness in addressing the underlying reasons (interventional power) and the predicted feasibility of their implementation (reliability of intervention). 26, 30.

## 6. Strategic planning and efficient execution

Ultimately, the strategy established clear accountability for risk, delineated specific roles and duties, and set deadlines for executing actions to minimize potential harm. The risk governance structure proved to be a valuable tool for planning risk assessment. This strategy involves determining the roles and duties of each employee in the RM plans.<sup>31, 32, 33</sup> Furthermore, it is recommended to do pilot studies and simulations prior to implementing a wide-ranging approach, as indicated by previous research (34,35).

These processes are usually carried out as iterative cycles that are managed and triggered by two ongoing activities: risk evaluation and monitoring, communication, and consultation.

## 7. Conclusion

A thorough and straightforward risk management framework is established for the executive levels of HCOs, based on the results and in line with the ISO31000 standard. The process consists of five primary stages: context establishment, risk assessment (comprising risk identification, risk analysis, and risk evaluation), risk treatment (including strategy selection, creating corrective measures, planning, and execution), monitoring and review, and communication and consultation.

Additionally, recommendations were made on the use of tools and procedures throughout each stage of the proposed risk management framework. These strategies have been chosen for their optimal application to non-clinical hazards in healthcare companies. Healthcare organization managers should use a variety of risk management techniques and tools to assure high quality. They should choose these methods and tools based on their specific needs and should not assume that one tool is complete.

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