

Original article

The Reality of Application of Risk Management in Children Hospital in Benghazi

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ARTICLE INFO

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Received: 27-07-2024

Accepted: 16-09-2024

Published: 21-09-2024

Keywords: Risk, Risk Management, Health Institutions.

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ABSTRACT

Risk management in public hospitals is the process that aims to identify potential risks, evaluate them, and plan to deal with them effectively. This study was intended to explore the reality of application of risk management in Children's Hospital in Benghazi. Across-sectional descriptive design was used for conducting this study. A total 264 healthcare professionals including doctors, nurses, and administrative staff working in children hospital participated in study. A self-administrated questionnaire was used to collect the data, which included two parts: general information, and risk management. Data were analyzed by SPSS. The results showed that half 51.9% of the participants acknowledged the presence of a dedicated risk management department. Medical risks account for 43.6% of the concerns, and 42% of respondents were unsure if the hospital's management integrates risk assessments into its strategy. Additionally, 63.3% felt that risk forecasting is inadequate, and 72% see the sources of risks as internal and external, and 54.9% believe that there are no effective methods in place to address risks, 58% think that the management does not adopt an effective risk management plan, 65.5% feel that the hospital does not respond to their concerns, 61.7% do not feel secure, and 64% believe that risks are not adequately assessed. The study concluded that presence risk management in children hospital, although it was deemed ineffective.

Cite this article. Salem F, Hashim Z, Almahdi N, Almghrabi H, Nasib M, Miftah R. The Reality of Application Risk Management in Children Hospital in Benghazi. *Alq J Med App Sci.* 2024;7(4):898-904. <https://doi.org/10.54361/ajmas.247401>

INTRODUCTION

Hospitals are some of the most delicate institutions because they deal with human beings who are the most valuable assets in a society. Therefore, time and precision must be crucial and decisive elements in saving the lives of patients require professionalism to enable them address accidents, injuries as well as threats facing their organizations while at the same time repairing their negative effects on individuals first and foremost which may cost them life as well as healthcare givers and hospitals at large. It is therefore important that there should be risk management processes which are designed for developing patient safety improvement strategies that will reduce risks hence minimizing accidents and errors. This is because it allows management to establish practices that will ensure the best management of hospitals, and thus ensure Continuous improvement of its outputs [1].

The prospect of loss or undesirable outcome affiliated with a conduct is referred to as risk. Inability to predict what will happen next is known as uncertainty. The higher the uncertainty, the greater the risk, risk management is defined as an organization's process of assessing and confronting its risks [2,3]. Risk management in public hospitals refers to a process that seeks to identify potential risks, assess them, and develop effective plans for managing them. This process consists of the planning, organization, direction and control of those activities and resources aimed at minimizing risks

and their potential impact on the hospital. On the other hand, when used in public clinics' settings, risk definition denotes possibilities such as accidents happening or affecting health care provided negatively to patients [4,5]. Finding risks is a necessity for healthcare organizations and risk managers. As uncertainty in managing risk becomes constant and new risks keep emerging, it is not easy to determine the threats that confront a healthcare entity but by employing data, institutional knowledge and industry practices as well as including everybody, patients and workers, clinics can detect some possible counteracting hazards and accidents that are not predictable otherwise, it should also have an ongoing consistent risk management plan too. This means every step or process of identification, mitigation or management of risks within such organizations is governed by these plans. In addition, hospital leadership and all department heads must be aware of this fact and should participate in developing and assessing the plan continuously. These healthcare risk management strategies set forth how business objectives will be achieved under the enterprise risk management framework; they describe what RM (Risk Management) do in their roles so as to reduce a specific number of exposures [6].

One issue in risk management research in public hospitals is to assess the success of communication and coordination within healthcare teams. Researchers can suggest strategies to improve teamwork, information sharing, and decision-making, enhancing patient safety and quality of care. It is essential to have knowledge of the answers to the following questions: What are the challenges currently faced by the health center, and how do you address them?. What types of risks exist within the organization?. What are the methods used to confront risks within the healthcare institution?. What are the obstacles in effectively managing risks for the health institution?. Risk management is a crucial element within public healthcare institutions as it plays a significant role in enhancing the quality of healthcare services and safeguarding the well-being of patients. Effectively assessing and managing risks not only helps in reducing occurrences of accidents and medical mistakes but also contributes to enhancing overall medical efficiency. It is imperative for various reasons, including enhancing patient safety, ensuring worker protection, complying with regulations and standards, improving sustainability and effectiveness, and facilitating well-informed decision-making [5]. Hence, this study aimed to explore the reality of application risk management in public hospital. An essential aspect of effective management is a dynamic process of ongoing enhancement, which is most effectively incorporated into current business practices or procedures [7]. Objectives of risk management in public hospitals is Determining and categorizing the several risk categories that the hospital may encounter, including operational, financial, legal, and medical risks, is the first goal. By classifying the risks in an orderly fashion, the management process will be made easier [8]. Assess the risks the hospital is facing: The purpose of this objective is to identify present and future hazards that could have an impact on hospital operations, patient and staff safety and other factors. Assess the hospital's administrative structure's reach in order to carry out risk management duties: The purpose of this objective is to assess the hospital's administrative capacity and resource availability for the efficient implementation of risk management procedures. Assess hospital management's adherence to global risk management standards: This objective seeks to guarantee that hospital management adheres to global risk management best practices and standards. Establish [9,10,11]. Risk management strategies: The goal of this objective is to create the plans and strategies required to properly manage the risks that have been identified. Determining the issues facing risk management in the healthcare setting: This goal seeks to determine the potential roadblocks and difficulties that the hospital's risk management procedure may encounter [12,13]. The types of risk management in public hospitals: Clinical risk management is the management of risks associated with the provision of medical care and therapies. Operational risk management: this area deals with risk management pertaining to hospital operational processes and procedures. Financial risk management: deals with hazards pertaining to the hospital's finances and economy. Safety and risk management: addresses issues pertaining to the security of assets, personnel, and patients. Human resource risk management: addresses risk management for hospital employees and human resources [14,15].

Risk management tools in health institutions, a few of the essential instruments in risk management that are useful for recognizing, assessing, and controlling different hazards. SWOT analysis is a technique that aids in determining the advantages, disadvantages, opportunities, and threats related to particular risks. Scenario analysis is the method by which different possible risk scenarios are planned for and handled. Checklists are instruments to detect possible hazards and guarantee that control measures are carried out. Risk assessment is the process of figuring out how likely it is that a risk will materialize and what kind of impact it will have in order to prioritize how best to address it. Risk maps are a type of diagram that show hazards based on their likelihood of occurring and their consequences. Sensitivity analysis is a method for assessing how possible modifications to important variables can affect the outcomes. Emergency preparedness is preparing for potential threats. Insurance is an instrument for assigning risks to a third party in return for a premium [16,17]. Determine risks that result from the health organization's operations and activities, include risks related to safety, quality, finances, operations, law, and regulation. Examining each risk's likelihood of happening as

well as how seriously it could affect the company, risks are categorized based on their level of severity. Create strategies to reduce significant risks, Using risk control measures, such as risk avoidance, risk reduction, or risk transfer. Constantly keeping an eye on how well risk management practices are working, Examine and revise risk management protocols in light of evolving internal and external circumstances, these are common steps for risk management in health institutions. The systematic process of detecting, assessing, and mitigating risks that could have an impact on the organization's health objectives is known as risk management in the healthcare institutions [18,19]. This study aimed to explore the reality of application risk management in Children Hospital in Benghazi.

METHODS

Study design

This descriptive cross-sectional design was conducted over a period of three month (from March to May 2024) in the Children's Hospital in Benghazi.

Study population

The study's target population included all employee's (administrators, physicians and nurse, pharmacies, lab technicians), who worked in Children's Hospital in Benghazi during the study period. The population total was 937, and the selected the sample size was 265 [20]. 265 self-administrative questionnaires were sent out to be filled out and returned. Only 264 questionnaires were completed.

Data collection tools

Data collected using a self-administered questionnaire was adopted from the previous study [21]. The questionnaire was divided into two sections: the first part contained personal information such as gender, age, education level, and years of experience; the second part was risk management, covered questions related to risks management includes: Part one: covers the types of risk present within the hospital. Part two: addresses the methods of dealing with risk in the hospital. Part three: includes the difficulties of risk management in the hospital. Responses to items of risk management were (yes, no or don't know). The internal consistency (Cronbach's alpha) for the items in questionnaire was 0.78 for risk management scale. The data was collected during the three work shifts of the respondents for a period of three weeks. The questionnaire was distributed to the respondent and collected the next day.

Statistical Analysis

Data entry and analysis were performed using the statistical package for social science (SPSS, version 20). Percentages and frequency were used as descriptive statistics.

Ethical Considerations

Administrative approval was obtained from the scientific committee of the faculty of public health, university of Benghazi, to conduct this study. In addition, permission was obtained from the hospital director and the office of administrative affairs, approvals were taken from all participants before data collection.

RESULTS

From table 1, that the majority percent was male (77%) while the highest percentage was (41.3%) from age 30 to 40, the highest percentage (53.4%) for Intermediate, the highest percentage (28.8%) from employee and the highest percentage was (44.3%) from more than 10 year while lowest percentage (22.3%) from 5 to 10 year.

Table 1. Demography data

| Variables | Frequency | Percent% | |
|-------------------|----------------|----------|------|
| Age Groups | 20-30 | 59 | 22.3 |
| | 30-40 | 109 | 41.3 |
| | More than 40 y | 96 | 36.4 |
| Gender | Female | 60 | 22.7 |
| | Male | 204 | 77.3 |
| Educational level | Intermediate | 141 | 53.4 |
| | Bachelor's | 90 | 34.1 |
| | master | 26 | 9.8 |
| | PhD | 7 | 2.7 |

| | | | |
|-------------------|----------------|-----|------|
| Jobs | doctor | 74 | 28.0 |
| | nursing | 75 | 28.4 |
| | Technical | 39 | 14.8 |
| | employee | 76 | 28.8 |
| Experience | From 1 - 5 | 88 | 33.3 |
| | From 5 - 10 | 59 | 22.3 |
| | More than 10 y | 117 | 44.3 |

From table 2, there were different opinions among employees regarding the presence of a dedicated risk management department within the organization. About half of them (51.9%) acknowledge the existence of risk management, while 48.1% believe there is no dedicated risk management department. The highest risk percent, related to medical risk, was 43.6% of the respondents, observe that the 42.0% of respondents didn't know if the hospital management consider risk management in the process of strategic planning, and that risk prediction alone is not sufficient to avoid danger within the organization. The majority of responses 63.3%, didn't agree. Moreover, half of the sample (50.4%) acknowledge the existence of a dedicated department for reporting all risks they encounter and 64.0% of the sample had not received the necessary training on how to deal with the risks they face, which affects their performance.

Table 2. Types of risk management in the organization

| Variables | | Frequency | Percent % |
|---|--------------------------------|------------------|------------------|
| Does your institution have a dedicated risk management department? | Yes | 137 | 51.9 |
| | No | 127 | 48.1 |
| What types of risks are present in your institution? | Social | 26 | 9.8 |
| | Medical | 115 | 43.6 |
| | Technical | 14 | 5.3 |
| | Administrative and Operational | 50 | 18.9 |
| | Multiple type | 59 | 22.3 |
| Does the hospital management consider risk management in the process of strategic planning? | Yes | 71 | 26.9 |
| | No | 82 | 31.1 |
| | Don't know | 111 | 42.0 |
| Does the prediction process in your organization include risk assessment to avoid risks? | Yes | 97 | 36.7 |
| | No | 167 | 63.3 |
| Does your organization have a department dedicated to reporting all types of risks? | Yes | 133 | 50.4 |
| | No | 131 | 49.6 |
| Does the risk management prepare you to deal with all types of risks? | Yes | 95 | 36.0 |
| | No | 169 | 64.0 |

Table 3 shows it is clear that both internal and external risks together for 72.0%, so the work environment is the primary factor from which most risks originate, accounting for 67.0% was yes, the extent of damage in risk identification is estimated at impact was 44.3%, indicate that 54.9% of the sample answered "No", there are no methods to address risks within their organization, that the organization lacks an effective risk management plan and does not have a dedicated risk management department representing 58.3%. It is evident that a significant category amounting to 47.3% is unaware of whether there are modern technologies available to address the risks facing and the majority of the sample 35.6% stated that they do not resort to the risk management department their organization.

Table 4 observes that the majority of the sample face obstacles in handling health risks, representing the largest group at 73.5%, the majority of respondent stated that hospitals do not respond promptly to resolve their issues when risks occur representing 65.5%, and the majority of the sample stated that the hospital does not provide or facilitate any ease in crisis procedures to deliver healthcare services representing the largest percentage at 57.6%. About 59.8% from respondent agreed that risk management improves the efficiency of the organization. Also 61.7% of the sample indicated that they do not feel safe within their institution due to surrounding risks and the majority believe that risks are not assessed within the institution representing 64.4%.

Table 3. The ways to confront within the organization

| Variables | | Frequency | Percent % |
|---|---------------------------|-----------|-----------|
| Sources of health risks | Internal | 57 | 21.6 |
| | External | 17 | 6.4 |
| | Internal and external | 190 | 72.0 |
| Does the environment you work in pose a source of risk? | Yes | 177 | 67.0 |
| | No | 87 | 33.0 |
| On what basis are risks identified? | Risk | 60 | 22.7 |
| | Probability of occurrence | 87 | 33.0 |
| | Impact | 117 | 44.3 |
| Do you have methods to address health risks within your organization? | Yes | 119 | 45.1 |
| | No | 145 | 54.9 |
| The organization adopts an effective plan to manage all risks? | Yes | 110 | 41.7 |
| | No | 154 | 58.3 |
| Are there modern technologies to address risks threatening your organization? | Yes | 32 | 12.1 |
| | No | 107 | 40.5 |
| | I don't know | 125 | 47.3 |
| Do you resort to the risk management department if you encounter or are exposed to a health risk within the organization? | yes | 91 | 34.5 |
| | No | 94 | 35.6 |
| | Sometimes | 79 | 29.9 |

Table 4. the difficulties of risk management in the organization

| Variables | | Frequency | Percent % |
|---|-----|-----------|-----------|
| Are there obstacles in dealing with health risks? | Yes | 194 | 73.5 |
| | No | 70 | 26.5 |
| Does the hospital respond quickly to your issues regarding these risks? | Yes | 91 | 34.5 |
| | No | 173 | 65.5 |
| Does the hospital streamline procedures to ensure speed and ease in delivering healthcare services? | Yes | 112 | 42.4 |
| | No | 152 | 57.6 |
| Can it be said that the role of risk management improves the efficiency of your healthcare institution? | Yes | 158 | 59.8 |
| | No | 106 | 40.2 |
| Do you feel secure within your institution regarding these risks? | Yes | 101 | 38.3 |
| | No | 163 | 61.7 |
| In your opinion, are these risks evaluated within your institution? | Yes | 94 | 35.6 |
| | No | 170 | 64.4 |

DISCUSSION

Risk management is a systematic approach used to identify, evaluate, and manage potential risks that can hinder an organization's goals [22]. This study aimed to explore the reality of application risk management in children hospital in Benghazi. The findings of this study indicated that there are differing opinions among employees regarding the presence of a dedicated risk management department within the organization. The majority 51.9%, acknowledge the existence of such a department, while 48.1% believe there is no dedicated risk management department. This discrepancy is likely due to confusion between the concepts of occupational health, safety and the risk management department. The majority of the sample regarding the most prominent risks they face. The highest risk percent related to medical risk was 43.6% of the respondents, from observe that the majority of the sample 42.0% don't know if the hospital management consider risk management in the process of strategic planning. The risk prediction alone is not sufficient to avoid danger within the organization. The majority of responses 63.3%, were "No". observe that the half of the sample 50.4% acknowledge the existence of a dedicated department for reporting all risks they encounter and 64.0% of the sample have not received the necessary training on how to deal with the risks they face, which affects their performance. This was consistent with previous study conducted in Algeria, as the sample indicates that the hospital does not have a dedicated risk management department, representing the largest percentage of (64.86%) [21], so this study aligns in that the sample indicates that the hospital does not consider risk management in the strategic planning process, which is the majority response at (70.3%), indicating that the sample shows the hospital does not include a risk assessment process to avoid risks. This is the largest percentage estimated at (81.1%), so indicate the presence of a risk reporting department estimated at (62.2%).

indicating that the hospital does not prepare and train its staff to handle different types of risks, with the majority of the results being negative at (75.7%). Other studies in Algeria differ with this study [23,24].

Although that it is clear that both internal and external risks together for 72.0%, so the work environment is the primary factor from which most risks originate, accounting for 67.0% was yes, the extent of damage in risk identification is estimated at impact was 44.3%, indicate that 54.9% of the sample answered "No, there are no methods to address risks within their organization, that the organization lacks an effective risk management plan and does not have a dedicated risk management department representing 58.3%. It is evident that a significant category amounting to 47.3% is unaware of whether there are modern technologies available to address the risks facing and the majority of the sample 35.6% stated that they do not resort to the risk management department their organization, that similar to pervious study in Algeria [21] and differ with another study in turkey [25].

The study revealed that the majority of the sample face obstacles in handling health risks, representing the largest group at 73.5%, the majority of respondent stated that hospitals do not respond promptly to resolve their issues when risks occur representing 65.5%, the majority of the sample stated that the hospital does not provide or facilitate any ease in crisis procedures to deliver healthcare services representing the largest percentage at 57.6%, 59.8% from respondent agreed that risk management improves the efficiency of the organization. According to the table, 61.7% of the sample indicated that they do not feel safe within their institution due to surrounding risks and the majority believe that risks are not assessed within the institution representing 64.4%. This is similar to study in Algeria [21].

CONCLUSION

The results indicate that there is a dedicated risk management department, medical risks are considered the most common type of risks faced by the institution, the majority of staff indicate that the evaluation process does not include risk assessment, hospital staff confirm that the does not have an effective plan to manage all risks and the hospital does not respond quickly to risk issues faced by employees.

Acknowledgments

The author would like to thank the children hospital in Benghazi and health services administration department in public health faculty in university of Benghazi for providing all facilities.

Conflicts of Interest

The authors declare no conflicts of interest.

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واقع تطبيق إدارة المخاطر في مستشفى الأطفال

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قسم ادارة الخدمات الصحية, كلية الصحة العامة, جامعة بنغازي, بنغازي, ليبيا.

المستخلص

إدارة المخاطر في المستشفيات العامة هي العملية التي تهدف إلى تحديد المخاطر المحتملة، وتقييمها، والتخطيط للتعامل معها بفاعلية. كان الهدف من هذه الدراسة هو تطبيق واقع إدارة المخاطر في مستشفى الأطفال، أجريت دراسة وصفية على 264 من الموظفين داخل المستشفى بما في ذلك الأطباء والممرضات والموظفون الإداريين. تتضمن الأداة المستخدمة في هذه الدراسة استبيانات منظمة، تم جمع البيانات التي تم تحليلها باستخدام SPSS الإصدار 20. تشير النتائج إلى وجود قصور كبير في إدارة المخاطر داخل المؤسسة الصحية. على الرغم من وجود قسم مخصص لإدارة المخاطر بنسبة 51.9%، إلا أنه غير فعال. المخاطر الطبية تمثل 43.6%، و42% من المشاركين غير متأكدين من اعتبار إدارة المستشفى لدراسة المخاطر في استراتيجيتها. كما أن 63.3% يرون أن التنبؤ بالمخاطر غير كاف، و50% أفادوا بتوفر قسم للإبلاغ عن المخاطر. 64% يعتبرون أن الإدارة لا توفر التدريب الكافي للتعامل مع المخاطر، و72% يرون أن مصادر المخاطر تشمل كل من الداخلية والخارجية. 67% يعتقدون أن بيئة العمل تشكل خطراً، و54.9% يرون عدم وجود طرق لمواجهة المخاطر. 58% يرون أن الإدارة لا تتبنى خطة فعالة، و35.6% لا يلجؤون لقسم إدارة المخاطر عند مواجهة المخاطر. 73.5% يواجهون عراقيل في التعامل مع المخاطر، و65.5% يرون أن المستشفى لا تستجيب لمشاكلهم. 57.6% يرون أن الإجراءات غير مبسطة، و59.8% يعتقدون أن دور إدارة المخاطر ساهم في تحسين الكفاءة. ومع ذلك، 61.7% لا يشعرون بالأمان، و64% يرون أن المخاطر لا تُقِيم بشكل كاف.

الكلمات المفتاحية: المخاطر، إدارة المخاطر، المؤسسات الصحية.