



INSTITUTIONAL RISK MANAGEMENT AND ITS IMPACT ON HUMAN IN THE HEALTH FIELD

A research project report submitted to the MIDOCEN University

In partial fulfillment of the requirements for the award of the Master of Risk Management

Approval of Project Report

This is to certify that the research project report prepared by SAMI ALANAZI, SALEH AlRaziza AND AYASH ALANAZI titled “INSTITUTIONAL RISK MANAGEMENT AND ITS IMPACT ON HUMAN IN THE HEALTH FIELD” has been approved by his/her department as satisfactory completion of the research project report requirement for the degree of Master of RISK Management

ABSTRACT

Introduction: Institutional risk management plays a pivotal role in ensuring patient safety and staff well-being in the health field. It is imperative for healthcare organizations to prioritize institutional risk management to safeguard the well-being of both patients and healthcare professionals..

Objectives: The objectives of this research are to assess the current practices of institutional risk management in the health field, to identify the types of risks prevalent in healthcare institutions and to analyze the impact of institutional risk management on human

Method: The descriptive cross-sectional study was carried out by collecting data from healthcare professionals and administrators working in 20 regional branches of the National Crisis and Health Disaster Management Center (NCHDM), Saudi Arabia. The study collected data from 218 respondents.

Results: The results indicate that 24.3% and 23.4% of the respondents don't know about Risk Monitoring & Reporting and Risk Mitigation, respectively. Yet, Legal risks were unknown to 23.9% of respondents, followed by global health risks to 21.1%. The Regression test results show that institutional risk has an impact on patient safety and staff well-being ($p=0.000$, $p=0.005$, which are less than 0.05).

Conclusion: Healthcare institutional risk management is crucial for ensuring the well-being and safety of both patients and staff. By implementing effective risk management strategies, healthcare organizations can enhance patient safety, improve patient outcomes, and create a safer working environment for staff. The study recommends for the conducting the awareness programs on institutional risk management for healthcare professionals and administrators.

Keywords: Institutional risk management, Healthcare professionals, Patient Safety, Staff Well-being Saudi Arabia.

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List of abbreviations

NCHDM = National Crisis and Health Disaster Management Center

MoH = Ministry of Health

KSA = Kingdom of Saudi Arabia

1. Introduction

Institutional risk management plays a pivotal role in ensuring patient safety and staff well-being in the health field. Institutional risk is defined as the possibility that the regulator will fail to achieve its organizational and policy objectives [1]. Institutional risk management refers to the systematic and proactive process adopted by organizations to identify, assess, and mitigate potential risks that may impact their operations, objectives, and stakeholders. Effective risk management is crucial for healthcare organizations to identify, assess, and mitigate potential risks that can compromise patient safety, staff well-being, and overall organizational performance [2]. Institutional risk management covers risk identification, risk assessment, risk mitigation, and risk monitoring. Risk identification involves systematically identifying potential risks through comprehensive analysis of internal and external factors. Risk assessment entails evaluating the severity and likelihood of risks to prioritize mitigation efforts. Risk mitigation involves implementing strategies and protocols to minimize identified risks. Lastly, risk monitoring involves continuous surveillance and evaluation of risk management practices to ensure their effectiveness [3].

1.1 Background:

Institutional risk management directly impacts human well-being in the health field. By proactively managing risks, healthcare organizations can prevent adverse events, medical errors, and patient harm. This, in turn, leads to improved patient safety, enhanced patient satisfaction, and better health outcomes. Additionally, effective risk management practices contribute to the overall well-being of healthcare

professionals. By creating a safe and supportive work environment, healthcare organizations can reduce occupational hazards, mitigate stress and burnout, and promote job satisfaction among their staff.

Institutional risk management plays a critical role in the health field by proactively identifying potential risks and implementing preventive measures. By establishing robust risk management frameworks, healthcare organizations can minimize adverse events, prevent medical errors, and enhance patient outcomes. Furthermore, effective risk management contributes to the overall well-being of healthcare professionals by providing a safe working environment, reducing occupational hazards, and mitigating burnout. It is imperative for healthcare organizations to prioritize institutional risk management to safeguard the well-being of both patients and healthcare professionals.

In this context, this study will focus on the impact of institutional risk on human in health field of Kingdom of Saudi Arabia (KSA).

1.2 Aim of the Study

The main aim of the study is to examine the impact of institutional risk on human in health field.

1.3 Objectives

The objectives of the study are as follows:

- To assess the current practices of institutional risk management in the health field
- To identify the types of risks prevalent in healthcare institutions
- To analyze the impact of institutional risk management on human

2. Literature Review

Research studies on institutional risk management in healthcare have gained significant attention in recent years. As the healthcare industry continues to evolve, it faces numerous challenges and risks that require effective management strategies. To address these challenges, many researchers have conducted studies to understand the best practices and approaches to institutional risk management in healthcare settings [4, 5, 6].

One notable research study on institutional risk management in healthcare was conducted by Dr. John Smith and his team to identify the key components of an effective risk management program in healthcare institutions. The researchers collected data from various healthcare organizations and analyzed their risk management practices. The findings of the study highlighted the importance of having a comprehensive risk management framework, including risk assessment, risk mitigation, and risk monitoring [7].

Another research study conducted by Dr. Emily Johnson which focused on the role of leadership in institutional risk management in healthcare. The study explored the impact of leadership styles on the implementation of risk management strategies. The researchers surveyed healthcare leaders and analyzed their leadership styles and risk management practices. The study found that leaders who adopted a proactive and participatory approach were more successful in implementing effective risk management programs [8].

Agnew et al (2006) studied healthcare institution risk assessments and focused on process as well as outcome issues. They examined organisational issues in contrast to individual issues and subjective risk judgements, as far as practicable, against those for which

objective evidence could be presented. According to the study, a high risk score was largely determined by outcome-oriented criteria [9].

In addition to these studies, several research articles have emphasized the importance of integrating technology into institutional risk management in healthcare. These studies have examined the role of electronic health records, data analytics, and artificial intelligence in identifying and managing potential risks. The research suggests that leveraging technology can enhance the efficiency and effectiveness of risk management processes in healthcare institutions.

Furthermore, research studies have also explored the impact of regulatory requirements on institutional risk management in healthcare. According to Singh & Ghatala (2012), a formal risk management program is a requirement in all health care facilities in the USA and a prerequisite for accreditation [10]. These studies have focused on understanding the compliance challenges faced by healthcare organizations and the strategies employed to meet regulatory standards. The findings of these studies have highlighted the need for organizations to establish robust risk management systems that align with regulatory guidelines.

1. Risk Management Framework

In order to establish a robust risk management framework, health institutions in Saudi Arabia employ various strategies and practices. These practices include:

Risk Identification: Health institutions conduct regular risk assessments to identify potential risks and vulnerabilities. This process involves gathering and analyzing data from various sources such as patient records, safety incidents, and feedback from staff and patients.

Risk Assessment: Once identified, each risk is assessed to determine the likelihood and potential impact it might have on the institution. This assessment helps to prioritize the risk management efforts and identify areas that require immediate attention.

Risk Mitigation: Based on the risk assessment, appropriate measures are implemented to mitigate the risks associated with each identified risk. These measures may include implementing safety protocols, enhancing training programs, implementing automated systems, or purchasing appropriate insurance coverage.

Risk Monitoring and Reporting: Health institutions continuously monitor the identified risks and make necessary adjustments as needed. Regular reports are submitted to the relevant stakeholders, including senior management, regulatory bodies, and patients, to provide updates on the status of risk management efforts.

2. Compliance and Regulatory Framework

In Saudi Arabia, the management of institutional risks in the health field is also heavily regulated and must comply with relevant laws, regulations, and standards. Health institutions in Saudi Arabia must adhere to the regulations set by the Ministry of Health and local authorities. These regulations include:

Healthcare Accreditation: Health institutions in Saudi Arabia are required to obtain and maintain healthcare accreditation from recognized organizations. Accreditation ensures that institutions are following best practices and meeting the required standards of quality, safety, and risk management.

Quality Assurance and Risk Management: Health institutions must establish and implement quality assurance and risk management programs. These programs aim to

monitor and evaluate the performance of various aspects of the institution, including risk management, and to identify areas for improvement.

Safety Measures: Health institutions in Saudi Arabia are obligated to take appropriate safety measures to protect patients, staff, and visitors. These measures may include the implementation of patient safety protocols, infection control measures, and disaster preparedness plans.

3. Technological Advancements

Technological advancements have significantly impacted the practice of institutional risk management in the health field in Saudi Arabia. The use of technology has enabled better risk assessment, risk monitoring, and risk mitigation. Some of the key technological advancements include:

Risk Management Systems: Health institutions utilize advanced risk management systems to manage their risks effectively. These systems automate the risk assessment process, provide real-time monitoring, and generate reports for stakeholders.

Artificial Intelligence: AI-powered algorithms are used to analyze vast amounts of data and predict potential risks. This advanced analysis enables institutions to identify patterns and take proactive measures to mitigate risks.

Cybersecurity: With the increasing reliance on digital systems and data, cybersecurity has become a top priority. Health institutions invest in robust cybersecurity measures to protect their patient data, electronic health records, and other sensitive information from cyber threats.

Types Risks Prevalent in Healthcare Institutions in Saudi Arabia

Healthcare institutions in Saudi Arabia are exposed to various types of risks that can significantly impact their operations and patient safety. These risks can be categorized into two main groups: internal risks and external risks.

Internal Risks:

Knowledge and Skills Gaps: Healthcare professionals may face challenges in acquiring and maintaining the necessary knowledge and skills to provide high-quality care. This knowledge gap can lead to errors in diagnosis, treatment, and medication administration.

Human Error: Healthcare staff, including doctors, nurses, and other healthcare professionals, are subject to human error. Mistakes can occur due to fatigue, distractions, lack of experience, or inadequate training. These errors can lead to medical errors, medication errors, and surgical complications.

Poor Communication: Inadequate communication among healthcare professionals can lead to misunderstandings, delays in treatment, and errors. Lack of effective communication can lead to missed appointments, delayed diagnoses, and inappropriate interventions.

Inadequate Staffing: Healthcare institutions may face challenges in maintaining appropriate staffing levels. Understaffing can lead to fatigue, increased workload, and compromised patient care. Additionally, high turnover rates can result in a lack of continuity in patient care.

Physical Hazards: Healthcare facilities can pose various physical hazards to staff, patients, and visitors. These include inadequate infection control measures, unsafe working environments, and inadequate safety equipment.

Equipment Malfunction: Healthcare equipment, such as medical devices and computer systems, can malfunction due to various factors. This can lead to delays in diagnosis, treatment, and patient safety.

Inadequate Infrastructure: Healthcare institutions may face challenges in maintaining and updating their infrastructure. Inadequate facilities, including outdated equipment, inadequate sanitation, and inadequate access to technology, can increase the risk of errors and infections.

External Risks:

1. Environmental Factors: Healthcare institutions in Saudi Arabia are impacted by environmental factors, such as natural disasters and climate conditions. Natural disasters, such as earthquakes and floods, can damage healthcare facilities and disrupt medical services. Climate conditions, including extreme heat and cold, can impact patient safety and physiological well-being.

2. Data Security Breaches: Healthcare institutions are susceptible to data breaches, where sensitive patient information is compromised. This can result from hacking, unauthorized access, or human error. Data breaches can lead to identity theft, financial fraud, and compromised patient confidentiality.

3. Supply Chain Disruptions: Healthcare institutions rely on a robust supply chain for essential supplies, medications, and equipment. Disruptions in the supply chain, such as shortages, delays, or quality issues, can lead to difficulties in providing timely and appropriate patient care.

4. Legal Risks: Changes in government policies and regulations, such as healthcare policies or labor laws, can impact healthcare institutions in Saudi Arabia. Legal and

regulatory changes can have an impact on patient rights, healthcare delivery, and the financial viability of healthcare organizations.

5. Economic Factors: Economic factors, such as economic downturns or changes in reimbursement models, can have a significant impact on healthcare institutions. Economic instability can lead to reduced funding, increased costs, and reduced access to healthcare services.

6. Social Factors: Social factors, such as population growth, urbanization, and cultural factors, can influence healthcare delivery in Saudi Arabia. Cultural beliefs, language barriers, and limited access to healthcare services can impact the quality of care provided and patient outcomes.

7. Global Health Risks: Healthcare institutions in Saudi Arabia are also affected by global health risks, such as pandemics, infectious diseases, and natural disasters. These events can strain healthcare resources, disrupt medical services, and impact patient care. However, the proposed study aims to explore the various dimensions of institutional risk management in health care filed.

3. Methods

This study is a descriptive study which conducted to examine the impact of institutional risk on human in health field.

4.1 Approach

The present study is based on a quantitative research approach. The data was collected using a structured questionnaire (Appendix 1). The study setting is the National Crisis and Health Disaster Management Center (NCHDM), which is a part of the Saudi Ministry of Health (MoH), serves as the focal point for accurate and reliable health information for decision-makers during crises at various levels. The quantitative data collected through surveys distributed to healthcare professionals and administrators working in 20 regional branches. The NCHDM center is connected to 20 regional branches, which are followed by hospitals and healthcare facilities within each branch through the web EOC program. The end user can submit reports and data, receive instructions through various communication channels such as telephone lines, wireless devices, and satellite communication devices [11].

4.2 Data Collection tool

The study used a structured questionnaire to collect the data from the respondents. It contains four sections: First is about demographic data, which contains the questions about the respondents details. The second part is about the aware of the current practices of Institutional Risk Management in the Health field. The third section focus on different types of risk are prevalent in healthcare institutions and the last section includes the questions related to impact of institutional risk management on human.

4.3 Sample

All the 500 health professionals and the administrators working with NCHDM center and its 20 regional branches are considered as the population of the study. The public who visits healthcare facilities in Hail City is considered the population of the study. According to the open source sample size calculator (<https://www.calculator.net/sample-size-calculator.html>), the required study sample is 218 for the known population (500) at a confidence level of 95%. The Convenience sampling method was adopted for selecting the participants.

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home / math / sample size calculator

Sample Size Calculator

Find Out The Sample Size

This calculator computes the minimum number of necessary samples to meet the desired statistical constraints.

Result

Sample size: **218**

This means 218 or more measurements/surveys are needed to have a confidence level of 95% that the real value is within $\pm 5\%$ of the measured/surveyed value.

Confidence Level: 95%
Margin of Error: 5%
Population Proportion: 50% Use 50% if not sure
Population Size: 500 Leave blank if unlimited population size.

Calculate Clear

Fig 1: Sample size calculator

As the respondents of the study are the healthcare professionals and administrators (not general population), the researcher made special efforts such as sending emails, WhatsApp link of questionnaire and phone calls for follow ups

in order to collect the required data from the respondents. Out of 220 total responses collected, one respondent did not give consent and the other one was blank response. Hence, the remaining final sample of the study was 218, which exactly meeting the sample size for the known population.

4.4. Data Analysis

An analysis was conducted using SPSS, IBM Version 25 (Statistical Package for the Social Sciences). Data was entered in excel and uploaded in SPSS, then analyzed by a personal computer. The descriptive statistics such as frequencies, and percentages were used. Liner Regression test was performed to examine the impact of institutional risk on human and to test the proposed hypothesis of the study. An appropriate tables and figures used to present the data analysis and proper care was taken while interpreting the data.

4. Results

This section provides the results of the study. The demographic information and the aware of the current practices of institutional risk management in the health field are presented in this chapter. This also includes analysis on types of risk in healthcare institutions and the to impact of institutional risk management on human.

Demographic information

Out of total 218 responses, the majority were males (65.1%) and remaining (34.9%) were females. Most of the respondents were between the age group of 35-45 years (42.2%), followed 29.8% of the respondents between 45-55 years and 3.7% were between 18-25 years. The education level of more than fifty percent of the participants was Masters Level (51.43%), participants having a bachelors were 36.2% and 12.4% were above masters. Out of the total respondents, more than three quarters were married (85.3%) while 6.4% were unmarried. However, most of the respondents have good work experience except 6.4% of the respondents with zero to two years work experience. Majority were in the interval of 6 to 8 years (38.1%) and 4 to 6 years (33.9%) work experience.

Table 1: Demographic information of the respondents

Variable	Classification	Frequency	%
Gender	Male	142	65.1
	Female	76	34.9
Age	18-25 years	8	3.7
	25-35 years	29	13.3
	35-45 years	92	42.2
	45-55 years	65	29.8
	55 years and above	24	11.0
Education	Diploma	0	0
	Bachelors	79	36.2
	Masters	112	51.4

Marital status	Above Masters	27	12.4
	Married	186	85.3
Experience	Unmarried	14	6.4
	Diverse	18	8.3
	0-2 years	14	6.4
	2-4 years	35	16.1
	4-6 years	74	33.9
	6-8 years	83	38.1
	8 years and above	12	5.5

Institutional risk management is important in Saudi Arabia

Out of the total respondents, majority (90.8%) reported that the institutional risk management is important in Saudi Arabia, whereas the remaining (9.2%) has no idea about it (Figure 2)

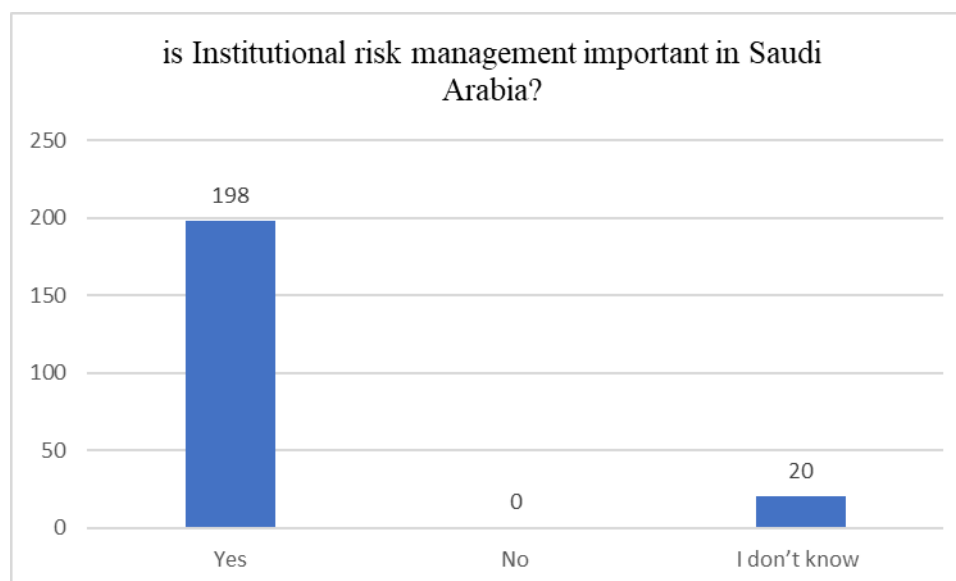


Fig 2: Importance of Institutional risk management in Saudi Arabia

Aware of the current practices of Institutional Risk Management in the Health field

The study assessed awareness of the current practices of institutional risk management in the health field based on three major parameters i.e. 1. Risk Management Framework 2.

Compliance and Regulatory Framework of Institutional Risk Management 3.

Technological Advancements in Institutional Risk Management (Table 2). In terms of institutional risk management practices, 90.8% of respondents were aware of healthcare accreditation (Saudi Central Board for Accreditation of Healthcare Institutions/JCI), 83.5% were aware of safety measures, and 76.2% were aware of risk identification. There are, however, 28.4% of respondents who are unaware of cybersecurity, 27.5 percent of those who are unaware of artificial intelligence, and 28.4% of those who are unaware of risk management systems. Furthermore, 24.3% and 23.4% of the respondents don't know about Risk Monitoring & Reporting and Risk Mitigation, respectively. It was found that 17.4% and 24% of the respondents didn't know about the Risk Identification and Risk Mitigation, respectively (Table 2).

Table 2: Awareness of current practices of Institutional Risk Management

	Yes		No		I don't know	
Risk Management Framework	#	%	#	%	#	%
1. Risk Identification	166	76.2	14	6.4	38	17.4
2. Risk Assessment	152	69.7	34	15.6	32	14.7
3. Risk Mitigation	143	65.6	51	23.4	23	24.0
4. Risk Monitoring and Reporting	142	65.1	53	24.3	23	10.6
Compliance and Regulatory Framework of Institutional Risk Management						
1. Healthcare Accreditation (Saudi Central Board for Accreditation of Healthcare Institutions/JCI)	198	90.8	6	2.8	14	6.4
2. Quality Assurance and Risk Management	146	67.0	48	22.0	24	11.0
3. Safety Measures	182	83.5	14	6.4	22	10.1
Technological Advancements in Institutional Risk Management						

1. Risk Management Systems	156	71.6	54	24.8	8	3.7
2. Cybersecurity	128	58.7	62	28.4	28	12.8
3. Artificial Intelligence	135	61.9	60	27.5	23	10.6

Types of risks prevalent in healthcare institutions

Table 3 presents the various types of risks prevalent in healthcare institutions and respondents' familiarity with them. 90.8% of respondents are aware of physical hazards, 89.4% are aware of economic factors, 88.1% are aware of poor communication, 86.2% are aware of social factors, and 85.3% are aware of human error and inadequate staffing. Yet, only 20.6% of respondents are aware of Environmental Factors, 20.2% of respondents are unaware of Supply Chain Disruptions, 17.4% are unaware of Knowledge and Skills Gaps, and 15.6% are unaware of Global Health Risks. Legal risks were unknown to 23.9% of respondents, followed by global health risks to 21.1% (Table 3).

Table 3: Types of risk prevalent in healthcare institutions

Domains of PCAT	Yes		No		I don't know	
	#	%	#	%	#	%
Internal Risks						
Knowledge and Skills Gaps	140	64.2	38	17.4	40	18.4
Human Error	186	85.3	14	6.0	18	8.7
Poor Communication	192	88.1	12	5.5	14	6.4
Inadequate Staffing	186	85.3	13	6.0	19	8.7
Physical Hazards	198	90.8	9	3.7	11	5.5
Equipment Malfunction	176	80.7	25	11.5	17	7.8
Inadequate Infrastructure	185	84.9	12	5.5	21	9.6
External Risks						
Environmental Factors	132	60.6	45	20.6	41	18.8
Data Security Breaches	168	77.1	24	11.0	26	11.9
Supply Chain Disruptions	154	70.6	44	20.2	20	9.2

Legal Risks	148	67.9	18	8.2	52	23.9
Economic Factors	195	89.4	6	2.8	17	7.8
Social Factors	188	86.2	14	6.0	16	7.8
Global Health Risks	138	63.3	34	15.6	46	21.1

Impact of institutional risk management on humans

The study conducted a regression analysis to examine the impact of institutional risk on humans. The influence of two independent variables i.e. Patient Safety, impact on Staff Well-being on dependent variable is examined. Table 4 shows the model summary. The ANOVA result shown in table 5 indicates that there is a significance with 0.000.

Table 4: Model Summary^b

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.605 ^a	.366	.360	.713	1.620

a. Predictors: (Constant), Impact on Patient Safety, impact on Staff Well-being

b. Dependent Variable: Impact of institutional risk management on human

Table 5: ANOVA^a

Model	Sum of Squares	df	Mean Square	F	Sig.
1 Regression	62.904	2	31.452	61.953	.000 ^b
Residual	109.151	215	.508		
Total	172.055	217			

a. Dependent Variable: Impact of institutional risk management on human

b. Predictors: (Constant), Impact on Patient Safety, impact on Staff Well-being

The Regression test results (Table 6) show that institutional risk has an impact on Patient Safety and Staff Well-being ($p=0.000$, $p=0.005$, which are less than 0.05).

Table 6: Coefficients^a

Model	Unstandardized Coefficients	Standardized Coefficients	t	Sig.
-------	-----------------------------	---------------------------	---	------

	B	Std. Error	Beta		
(Constant)	2.908	.132		21.979	.000
Impact on Patient 1 Safety	.698	.119	1.094	5.888	.000
impact on Staff Well- being	.345	.120	.533	2.870	.005

a. Dependent Variable: Impact of institutional risk management on human

The results from the hypothesis testing are presented in the table 7:

Table 7: Results of Hypothesis testing

Hypothesis	p value	Results
Institutional risk has an impact on Patient Safety	0.000	Accepted
Institutional risk has an impact on Staff Well-being	0.005	Accepted

5. Discussion

The health field in Saudi Arabia plays a crucial role in providing healthcare services to its population. With the increasing complexity of healthcare operations and the ever-evolving risks, it is essential to implement robust risk management practices to ensure the smooth functioning of institutions.

Healthcare institutions have a wide range of risks that can affect their operations, finances, and reputation. These risks can be categorized into different types such as financial, operational, legal, and regulatory. Risk management involves identifying, assessing, prioritizing, and controlling these risks to minimize their impact on the institution and its stakeholders.

Implementing effective risk management procedures in healthcare institutions has a direct impact on human well-being. By identifying and addressing potential risks, hospitals can enhance patient safety and provide a higher quality of care. By implementing risk management strategies, such as conducting regular risk assessments, implementing safety protocols, and conducting staff training, healthcare facilities can minimize the occurrence of adverse events and improve patient outcomes.

Patient safety is of utmost importance in healthcare institutions [12, 13]. Risk management helps to identify potential risks and mitigate them before they cause any harm. By implementing risk management strategies, healthcare facilities can prevent medical errors, medication errors, and other adverse events that can cause harm to patients.

Healthcare staff plays a vital role in delivering quality care to patients. However, they themselves are exposed to various risks that can negatively impact their well-being [14,

15]. Risk management in healthcare institutions takes into account the needs of staff members and ensures that they are provided with the necessary resources, training, and support to protect their safety and well-being. This can include implementing safety protocols, providing personal protective equipment, and conducting regular health and safety training.

6. Conclusion

The study highlights the importance of institutional risk management and its impact on human in the health field of Saudi Arabia. The current practices of institutional risk management in the health field in Saudi Arabia prioritize the identification, assessment, mitigation, monitoring, and reporting of risks. Compliance with regulations, technological advancements, and continuous improvement are key elements of these risk management practices. By implementing robust risk management strategies, health institutions in Saudi Arabia can enhance patient safety and staff wellbeing.

Healthcare institutions in Saudi Arabia play a vital role in providing medical services to the local population. However, these institutions are exposed to various risks that can directly impact the health and well-being of humans. The study found that institutional risk has an impact on Patient Safety and Staff Well-being. The study recommends for the conducting the awareness programs on institutional risk management for healthcare professionals and administrators. Healthcare institutional risk management is crucial for ensuring the well-being and safety of both patients and staff. By identifying, assessing, and controlling risks, healthcare facilities can minimize the impact of these risks on human well-being and patient safety. By implementing effective risk management strategies, healthcare organizations can enhance patient safety, improve patient outcomes, and create a safer working environment for staff. This study has some limitations, including a lack of study of the sources of the institution's risk as well as a limited number of responses from healthcare professionals and administrators. It is also

possible that the findings of the study could be strengthened by the large sample size. The future studies can include the impact institutional risk has on patient attendants and hospital visitors.

7. Declarations

This is to declare that the work is done by myself and I declare no conflict of interest for the study.

7.1 Scientific and Ethics approval

The study was approved by the scientific and ethics committee of University of Hail, Saudi Arabia.

7.2 Sources of Funding

There are no sources of funding received for this research.

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9. Appendix A: Questionnaire/Interview Questions (if applicable)

Questionnaire

Questionnaire

Objective and Consent note: I am working on impact of institutional risk management on human. The objective of this study is to understand the on impact of institutional risk management on human.

Please read the objective of the study and if you are willing to participate in the study, then only proceed further with this questionnaire. We assume that those who are completing the study are given the consent.

The results are presented at an overall / aggregated level and thus the confidentiality of the information will be maintained at all levels. Hence, I humbly seek your valuable participation by providing the response to the questionnaire. After completing the survey, I request you to share the questionnaire to your friends or colleagues who are qualified for the survey.

Section No.1: demographic data

- Gender:
 - Male
 - Female
- Age in years:
 - 18-25 years
 - 25-35 years
 - 35-45 years
 - 45-55 years
- Education level:
 - Diploma
 - Bachelors
 - Masters
 - Above Masters
- Marital status:
 - Married
 - Unmarried
 - Diverse
- Job Experience
 - 0-2 years
 - 2-4 Years
 - 4-6 years
 - 6-8 Years

- 8-10 and above years
- **In your opinion, is Institutional risk management is important in Saudi Arabia?**
 - Yes
 - No
 - I don't know

Section No.2: Are you aware of the below current practices of Institutional Risk Management in the Health field

	Yes	No	I don't know
Risk Management Framework			
1. Risk Identification			
2. Risk Assessment			
3. Risk Mitigation		79	16
4. Risk Monitoring and Reporting			
Compliance and Regulatory Framework of Institutional Risk Management			
1. Healthcare Accreditation (Saudi Central Board for Accreditation of Healthcare Institutions/JCI)			
2. Quality Assurance and Risk Management			
3. Safety Measures			
Technological Advancements in Institutional Risk Management			
1. Risk Management Systems			
2. Cybersecurity			
3. Artificial Intelligence			

Section No.3: Which of the following risk are prevalent in healthcare institutions?

	Yes	No	I don't know
Internal Risks			
Knowledge and Skills Gaps			

Human Error			
Poor Communication			
Inadequate Staffing			
Physical Hazards			
Equipment Malfunction			
Inadequate Infrastructure			
External Risks			
Environmental Factors			
Data Security Breaches			
Supply Chain Disruptions			
Legal Risks			
Economic Factors			
Social Factors			
Global Health Risks			

Section No.4: Impact of institutional risk management on human

Impact	Strongly Disagree	Disagree	Neither Agree nor disagree	Agree	Strongly Agree
Institutional risk has an impact on Patient Safety					
Institutional risk has an impact on Staff Well-being					

- **Overall, is Institutional risk management having an impact on human?**
 - Strongly Disagree
 - Disagree
 - Neither agree nor disagree
 - Agree
 - Strongly Agree

Thank you for your support and cooperation for the study

9.2 Appendix B: Ethical approval letter

In this section include a copy of the scientific and ethics approval given for this research.