

# An Investigation into the Correlation Between Human Competencies and Crisis Management at the Benghazi Medical Center

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## ABSTRACT

**Objectives:** The main question of this study is: What is the relationship between human competencies and crisis management at the Benghazi Medical Center? The study aimed to identify the role of human competencies in crisis management at the center, in other words, to determine the relationship between human competencies and crisis management at Benghazi Medical Center. The study's significance lies in its potential to exacerbate the challenges faced by the health sector as it seeks to recover from COVID-19 and deal with resource shortages, emphasize the value of human skills in crisis management, and increase global focus on crisis management, especially in the context of limited resources.

**Background:** Due to the urgent issues faced by government hospitals, such as the high number of patients seeking medical services, a shortage of beds in Benghazi due to the wars, limited resources, and increasing morbidity and mortality rates, the hospital departments are unable to effectively handle the critical events and crises that require specific knowledge, skills, and technical abilities. The concept of crisis management is considered important in the administrative sciences due to the interest of countries and governments in determining appropriate policies or procedures in the face of emergencies and sudden disasters.

**Methodology:** Cross-sectional data was used; 50 questionnaires were distributed, of which 43 were returned and analyzed, representing 86% of the questionnaires distributed to the study sample. This study is one of the field studies in which the descriptive analytical method was used, and simple linear regression analysis was used to determine the effect of the human competencies dimension on the effectiveness of crisis management at Benghazi Medical Center

**Results:** The results showed that the independent factors represented by human knowledge, human capacity, human skill, and human behavior have a positive, direct, and significant impact on crisis management at the Benghazi Medical Center.

**Conclusions:** Investing in training opportunities for personnel at the Benghazi Medical Center is crucial for improving their effectiveness and efficiency in carrying out their tasks. By ensuring that staff have the necessary knowledge and skills, the hospital can enhance the quality of care provided and ultimately improve overall patient outcomes.

**Recommendations:** Continuous training programs should be a priority for the hospital administration to support the development of human competencies among its workforce. By implementing these recommendations, the Benghazi Medical Center can strive towards achieving its goals of delivering high-quality healthcare services to its community.

**Keywords:** Human competencies, Crisis management, Benghazi Medical Center, Training programs, Healthcare services, Cross-sectional data

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## INTRODUCTION

The concept of crisis management is considered one of the most modern and significant concepts in the administrative sciences. Governments and countries are highly interested in determining appropriate policies and strategies to handle emergencies and sudden disasters. Crisis management is a critical topic for both large and small institutions, as countries realize the potential for heavy losses if crises are not effectively managed.

Successful and effective crisis management is crucial for organizations to utilize their human and material resources appropriately and prevent or minimize the impact of crises. Managers utilize their skills and abilities to address serious events and problems to fulfil their responsibilities.

The organization's efficiency and success in achieving its goals depend on the competencies and capabilities of its human resources. The Benghazi Medical Center aims to improve staff levels, efficiency, and service quality through knowledge development, increased experience, and skill enhancement to boost the productivity of medical and administrative staff.

Each crisis has indicators, manifestations, and characteristics that distinguish it. While each crisis requires a specific management method, common standards and elements in planning and preparation help in preventing and mitigating their negative effects and increasing the chances of preventing these effects to benefit the organization. This study will explore the role of human abilities in addressing serious problems in the hospital, focusing on knowledge, behaviour, ability, and skills to overcome crises effectively.

**Human Competencies:** The human factor is one of the most vital elements for any organization to achieve its goals. Many organizations tend to overlook the importance of human resources in favor of materials and advanced machines. However, human elements are fundamental to the success of an organization. Recognizing the significance of human resources in attaining excellence, creativity, and a competitive edge, organizations are seeking ways to harness and preserve their abilities and creativity. This category plays a crucial role in an organization's ability to achieve development and continuity. Organizations that prioritize their human resources tend to be more successful and profitable.

**Human Knowledge:** The concept of knowledge is a modern term for a very old concept, which is science. Knowledge is the foundation of development and the gateway to progress and advancement. It has played an important and distinctive role in the history of nations as it has formulated trends for both the present and the future.

Al-Kubaisi (2005) defined knowledge as "everything that is implicit or apparent, elicited by working individuals to perform their work well or to make correct decisions." According to Yuan Fu et al. (2006), knowledge is "ideas, rules, and procedures that serve to guide actions and decisions."

**Human Capabilities:** Human capabilities refer to the fundamental process that enables individuals to acquire knowledge, understanding, and skills, and access available information to enhance their effectiveness and contribute to the organization's strength and security. It also involves sharing experiences widely to benefit from successful human practices (3).

According to Chapagain (2004), capacity is the process of executing, delivering, sustaining, and enhancing a specific task or project. It is an open system that adapts to changes and seeks opportunities for innovation.

Lertputtarak (2012) defines human capabilities as a set of attributes that enhance the effectiveness of human resources and enable organizations to achieve business strategies in competitive markets.

**Human Skills:** In the early 20th century, the concept of human skills emerged as a result of significant developments in the field of human resource management. Initially, individuals were distinguished based on their scientific qualifications and personal characteristics. However, today, the focus has shifted towards human skills, which are essential due to the complexity of jobs and tasks. Scientific qualifications and personal characteristics alone are unable to meet the requirements of an organization's strategy and culture.

According to Ali (2008), human skills are defined as "the ability to perform a specific task with excellence, and a skilled person is someone who possesses or demonstrates this ability." Al-Srouji (2008) defined human skills as "the ability to apply available information, and the skill is tied to selecting appropriate information for the situation and engaging in a professional activity aligned with specified goals."

**Human Behaviors:** The role of human resources in the field of work performance and management science is widely discussed in the literature. The behavior and performance of employees within an organization are of utmost importance. Work behaviors encompass the enrollment and retention of individuals within the organization, their execution of primary tasks, and their involvement in activities beyond their formal responsibilities, such as supporting colleagues, suggesting improvements, and safeguarding the organization's resources (8).

According to Masauy (2005), human behavior refers to the attitudes and personal qualities of an individual related to their work, encompassing traits such as organization, initiative, precision, and overall competence. These attributes are aligned with the organization's goals and are essential for achieving them.

In Bouzaid's perspective (2011), human behavior is described as a complex phenomenon influenced by emotional and subconscious factors, which are theoretically acquired or genetically inherited. These factors are linked to social and economic conditions as well as an individual's health and mood.

**Crisis Management:** Crises and emergency disasters have been a part of human existence since ancient times. While some crises can be controlled and managed, others can have long-lasting psychological and emotional effects. These effects can undoubtedly impact the overall efficiency of individuals and communities.

Over time, organizations have developed and diversified their methods for managing crises. Among these methods are the traditional approaches to crisis management, which in themselves can pose a challenge.

To effectively prepare for any potential disasters, individuals and countries must create comprehensive plans. These plans, documented by the Crisis Management Authority, should encompass solutions for health-related crises such as those occurring in hospitals. Proper planning is essential for individuals to return to normalcy after a crisis and for the rapid recovery of the country's economy.

Crisis management is a critical area of concern for countries and both small and large institutions. The focus on crisis management grew as countries realized the significant losses they could incur if crises were not effectively handled. The concept of crisis management varies depending on different perspectives and the specific fields of knowledge it addresses, whether it's political, social, administrative, or health-related (11).

**The Crisis:** "A crisis is a transitional circumstance characterized by imbalance and representing a turning point, determining future events that can lead to a major change stage or critical transformation, either for better or worse" (Al-Araji and Daqamseh, 2013). A crisis is also defined as "a sudden, unexpected event or situation that threatens the ability of individuals or organizations to survive" (13). Browder's definition describes crises as sudden and unexpected events in which the causes are intertwined with the results. The events follow very quickly, increasing the degree of uncertainty about future developments and leaving the decision-maker extremely perplexed for the year of any decision he takes. He may lose his ability to control and identify.

After discussing the crisis definition, we can define crisis management as the process of planning to overcome negative and unexpected future events and preparing fully to confront them by preventing or minimizing their damage to the organization. This involves setting strategies, models, and expected scenarios for expected and unexpected crises, and suggesting alternatives and solutions for each situation that may occur.

**Crisis Management Stages:** The process of crisis management involves several stages, as outlined by Al-Qahtani (2015): **1) Avoiding the crisis:** This initial stage involves ignoring the existence of a crisis, often due to a belief that it is under control; **2) Preparation for crisis management:** This stage involves developing plans to address crises, including action plans, communication strategies, and establishing public relations; **3) Recognizing the existence of the crisis:** At this stage, internal and external investigators are engaged to fully understand the situation; **4) Containing the crisis:** This stage relies on having comprehensive information about the crisis and effectively utilizing it; **5) Addressing the crisis:** Speed is crucial at this stage, as the crisis and its consequences do not wait; and **6) Learning from the crisis:** This stage involves efforts to mitigate losses from the crisis and capitalize on opportunities for improvement and growth.

**The Role of Human Competencies in Managing Health Crises:** This section of the study focuses on the importance of human resources in crisis management through the following dimensions: effective crisis planning, skilled leadership, expert leadership, and the presence of an effective communication system.

**Effective and good crisis management:** "Planning is the most important step in crisis management. It involves pre-determining what should be done, how to do it, when, and who will do it. Planning is connected to the facts of the crisis and the perceptions of its future situations. An integrated program or scenario for crises should be developed to take appropriate preventive measures that lead to preventing the causes of the crisis" (15). The importance of human competencies in managing health crises is as follows: **1) Preventing or reducing the occurrence of crises;** **2) Ensuring the organization's readiness to deal immediately and efficiently with the crisis by providing an appropriate reaction to reduce its negative effects;** **3) Focusing on the main problem when it reaches its climax;**

**4) Determining the procedures for dealing with the crisis;** **5) Saving time during crises, as it is the most expensive and least available resource;** and **6) Providing the effort, materials, and human resources necessary to overcome the crisis** (Al-Khashali and Al-Qutb, 2007).

**Skilled and Expert Leadership:** Leadership is the ability to direct, coordinate, communicate, make decisions, and control to achieve a specific purpose, using influence or official authority when necessary. It involves a set of behaviors practiced by the leader within a group, which is influenced by the leader's personality traits, the followers, task

characteristics, organizational patterns, and the surrounding cultural context. Effective leadership leads to satisfaction and a high degree of group cohesion (17).

**The Existence of an Effective Communication System:** It involves the transfer and exchange of information, ideas, and instructions related to the crisis among the crisis team leader, team members, and the team's support units.

## **LITERATURE REVIEWS**

### **Establishment of Crisis Management Mechanisms in Public Hospitals (Lin et al., 2016).**

The study aimed to examine the key administrative factors that influence the establishment of crisis management mechanisms in public hospitals in Taiwan. The research utilized a questionnaire distributed to hospital administrators and physicians serving as medical institution directors. Out of 451 questionnaires distributed, 052 valid samples were returned, resulting in a 35% response rate. The researchers used a non-linear haze ANN model to test their hypotheses.

The study's significant findings included the positive relationship between the volatility of the hospital management environment and the establishment of crisis management mechanisms, as well as the close association between crisis management operations and the establishment of a medical risk system. However, the research also suggested that the unstable organizational culture in public hospitals hinders the enhancement of the crisis management mechanism process. Based on these findings, the study recommended conducting similar research in other sectors to help optimize crisis management teams.

### **Training course in achieving the efficiency of crisis management in Libyan hospitals (19).**

The study focused on the role of training in achieving the efficiency of crisis management in Libyan government hospitals. The research used a descriptive-analytical method and designed a measurement tool that was distributed to a random sample of hospital employees.

The study's conclusion highlighted the positive impact of training on crisis management efficiency in Libyan government hospitals. It also recommended an increased focus on training due to its beneficial effect on crisis management efficiency in Libyan governmental hospitals.

### **Role of strategic human resource management in crisis management in Australian Greenfield hospital sites: A crisis management theory perspective (Kendrick et al., 2019).**

This study examined the strategic human resource management (SHRM) activities in two case hospitals about their approach to Greenfield site success. A comparative case study analysis approach was used, with documents sourced from public, open-access sites. The analysis used crisis management theory's (CMT) proactive management and open communication channels to examine annual reports, union publications, and transcripts of relevant parliamentary inquiries from both hospitals' first year of performance. The study found that the hospital that effectively used CMT in its first 12 months was demonstratively more 'successful' than the hospital that reported not having effectively used CMT. 'Success' was defined as the hospital's ability to consolidate operations without ongoing negative media attention after 12 months. This study revealed the significance of using CMT in a hospital's Greenfield stage to increase the hospital's chances of 'success'. The study also addressed the gap in Greenfield human resource management (HRM) regarding successful consolidation, especially in the healthcare context, and highlighted the potential link between the implementation of CMT and Greenfield site success. However, the lack of stakeholder participation in the study limits the applicability of its findings, although archival document analysis provides a strong foundation for future studies.

### **The Role of Human Competencies in crisis management in Kuwait Government Hospitals (21).**

This study aimed to identify the role of human competencies in crisis management in Kuwait government hospitals. A questionnaire was developed and administered to a sample of participants from all nine Kuwaiti government hospitals. Out of 108 questionnaires that were distributed, 141 (30.77%) were usable for data analysis. Descriptive analysis and multiple regression were used for testing hypotheses. The results revealed that human knowledge, human capacity, human skill, and human behavior have significant roles in crisis management in Kuwait government hospitals, with a high correlation coefficient ( $R = 0.648$ ) between all independent and dependent variables. Based on these findings, the study recommended that individual employees in the hospitals have a clear understanding of acceptable standards, possess the ability to use technical equipment efficiently and undergo training programs to enhance their skills.

## **METHODOLOGY**

The study employed a descriptive cross-sectional approach, which is considered the most suitable method for this type of research. It focused on the heads of the managerial department at Benghazi Medical Center. The population of the study comprised 50 heads of the managerial department at Benghazi Medical Centre. The researchers distributed 50 questionnaires and received 43 completed questionnaires, representing an 86% response rate.

The questionnaire used in the study was adapted from "The Role of Human Competencies in Crisis Management in Kuwait Governmental Hospitals" by Alrashidi. It consisted of three parts:

The first part collected demographic information such as gender, age group, educational level, and years of experience. The second part contained 29 statements related to four main human competencies: 7 on Human knowledge, 7 on Human ability, 7 on Human skills, and 8 on Human behaviors.

**The third part included 10 statements related to crisis management in hospitals.**

The data was analyzed using a 5-level Likert scale. The researchers utilized SPSS (Statistical Package for Social Sciences) version 22 to perform descriptive statistics (mean, median, and standard deviation). Additionally, Spearman Rho’s test was used to determine the correlation between the research variables.

## RESULTS

### Demographic Data

#### The Gender:

**Table 1: Gender Distribution**

	Frequency	Percent
Male	18	41.9%
Female	25	58.1%

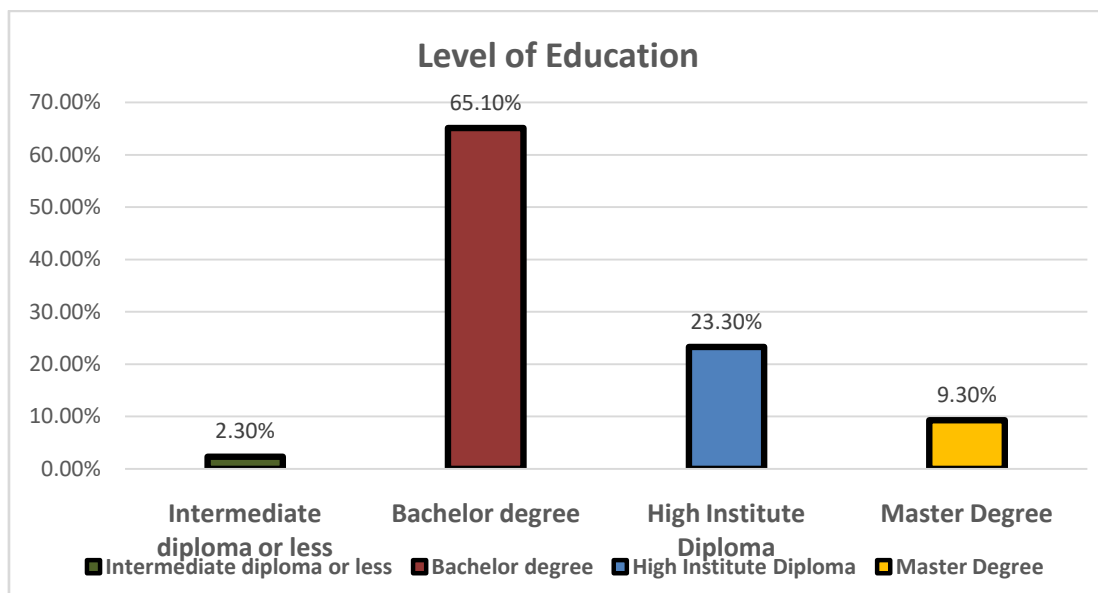
Table 1 displays the gender distribution of the study population: 58.1% female and 41.9% male.

#### The Age:

**Table 2: Age distribution**

Age	Frequency	Percent
Under 30 years old.	5	11.6%
30 to less than 40 years old	25	58.1%
40 to less than 50 years old	12	27.9%
More than 50 years old	1	2.3%

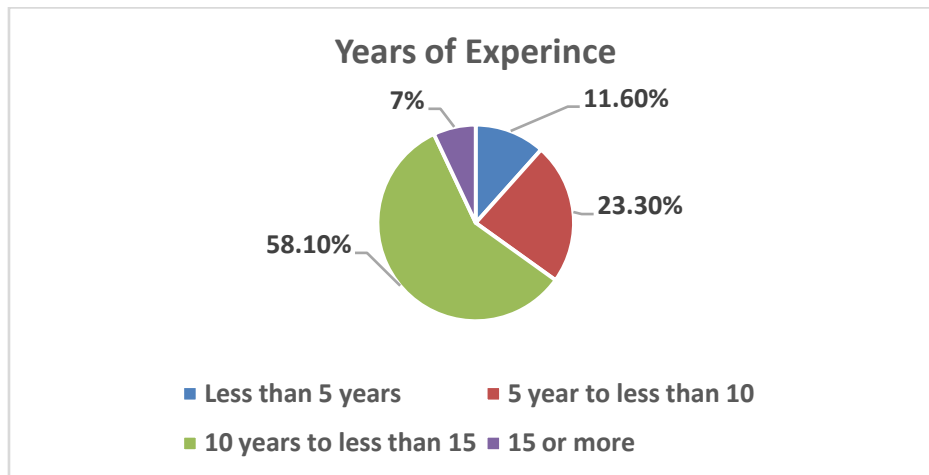
#### Level of Education:



**Figure 1: Level of Education**

Fig. 1 depicts the distribution of education levels, with the highest being a bachelor's degree at 65.1%.

**Years of Experience:**



**Figure 2: Years of Experience**

Fig. 2 illustrates that individuals with 10 to less than 15 years of experience had the highest level.

**Analysis of Questionnaire Statements:**

**Human Knowledge's:**

**Table 3: Human Knowledge's**

N	Statements	Mean	Standard Deviation	Relative Weight	
1	Hospital staff have the knowledge the necessary professional skill	3.372	0.900	%67.44	neutral
2	The employees have sufficient knowledge of the standards approved for performing takes in the hospital	3.093	1.019	%61.86	neutral
3	Hospital workers have the ability to put in the practice the knowledge they possess.	3.558	0.881	%71.16	Agree
4	The hospital administration is working to develop the knowledge of workers through holding specialized training courses from them at all level	3.139	1.059	%62.78	neutral
5	Hospital administration documents the experience of the workers and their experience in their own files in order to refer to them when needed	3.325	1.062	%66.5	neutral
6	Hospital employees invest knowledge in developing the business entrusted to them.	3.488	0.797	%69.76	agree
7	Hospital workers share their colleagues in other departments in business development	3.209	0.965	%64.18	neutral
Total	Arithmetic mean and the general standard deviation of the human knowledge dimension	3.312	0.662		neutral

**Human Abilities:**

**Table 4: Human Abilities**

N	Statements	Mean	Standard Deviation	Relative Weight	
1	The hospital staff has the ability to manage and invest time	2.976	0.987	%59.52	neutral
2	The hospital administration has the ability to employ the material and human capabilities in order to make optimal use of it	3.255	0.978	%65.1	neutral



3	The hospital staff has ability to activate the strategies to face crises	3.023	1.101	%60.46	neutral
4	The hospital staff applies the regulations elaborately developed plastic	2.976	1.079	%59.52	neutral
5	Hospital staff have the ability to use technical equipment	3.558	0.881	%71.16	agree
6	Hospital workers have the ability to take advantage of modern technologies in the face of the crisis	3.372	0.900	%67.44	neutral
7	Hospital staff have the ability to correct assessment of crisis	3.186	0.932	%63.72	neutral
	Arithmetic mean and general standard deviation of the dimension of human capabilities	3.192	0.737		neutral

**Human Skills:**

**Table 5: Human Skills**

N	Statements	Mean	Standard Deviation	Relative Weight	
1	The staff possesses the necessary skills in order to deal with the programs and applications used in the hospital.	3.325	0.969	66.5%	neutral
2	The staff possesses the necessary skills in communication and communication with the auditors in the hospital.	3.558	0.983	71.16%	agree
3	The employees have a good attitude towards superiors and subordinates in the hospital.	3.674	0.778	73.48%	agree
4	The hospital management analyzes the staff levels in order to determine their strengths and weaknesses.	2.907	1.087	58.14%	neutral
5	The hospital administration seeks to hold training programs to increase the skills of its employees.	3.139	1.081	62.78%	neutral
6	Employees seek to increase their skills by using time as efficiently as possible in order to complete work.	3.232	0.811	64.64%	neutral
7	The hospital staff performs their assigned job tasks quickly and efficiently.	3.209	0.965	64.18%	neutral
	Arithmetic mean and general standard deviation of the human skills dimension.	3.292	0.729		neutral

**Human Behaviours:**

**Table 6: Human Behaviours**

N	Statements	Mean	Standard Deviation	Relative Weight	
1	The behaviour of hospital staff is consistent with the conduct and ethics of the profession.	3.627	0.756	72.54%	Agree
2	The behaviour of hospital staff is consistent with the general objectives of the hospital.	3.627	0.724	72.54%	Agree
3	Hospital employees are obligated to follow work rules and procedures in the performance of their work.	3.465	0.882	69.3%	Agree

4	Hospital staff have direct communication skills with all parties.	3.534	0.854	70.68%	Agree
5	Workers defend their opinions and ideas aggressively in meetings.	3.372	1.024	67.44%	Neutral
6	The hospital administration develops affection and trust between it and the hospital staff.	3.093	0.995	61.86%	Neutral
7	The hospital staff performs their tasks efficiently and creatively.	3.139	0.861	62.86%	Neutral
8	Hospital staff do extra work at work.	3.534	1.141	70.68%	Agree
	The arithmetic mean and the general standard deviation of the human behaviour dimension.	3.424	0.533		Agree

**Crisis Management:**

**Table 7: Crisis Management**

N	Statements	Mean	Standard Deviation	Relative Weight	
1	The hospital administration provides the necessary support for its employees to prepare for any crisis	3.186	1.0523	63.72%	Neutral
2	The hospital administration forms specialized teams to monitor and analyze any crisis.	3.255	.978	65.1%	Neutral
3	The hospital is keen to provide a crisis management team with high knowledge and skills to deal with any crises	3.166	1.095	62.32%	Neutral
4	The hospital management periodically updates the existing emergency plans in line with changes in the hospital's internal and external environment.	3.348	.922	66.96%	Neutral
5	The hospital administration takes the necessary measures to prevent the occurrence of any crisis.	3.325	1.062	66.5%	Neutral
6	The hospital administration deals with the problems of employees and auditors with speed of response and attention.	3.232	1.0654	64.64%	Neutral
7	The hospital administration exchanges ideas and opinions with the staff when any event or crisis occurs.	3.232	1.042	64.64%	Neutral
8	The hospital administration trains employees at all organizational levels on how to face crises.	3.186	.957	63.72	Neutral
9	The hospital management takes into account the lessons learned from previous crises, to ensure that no crises are repeated in the future.	3.395	.979	67.9%	Neutral
10	The hospital administration deals with all the damage caused by crises.	3.418	.981	62.96%	agree
	The arithmetic mean and the general standard deviation of the crisis management dimension.	3.269	.844		Neutral



The Spearman’s Rho test is utilized to examine the relationship between human competencies and crisis management.

**Table 8: Spearman’s Rho test**

	<b>Dimensions of Human Competencies</b>	<b>Spearman’s rho</b>	<b>P-Value</b>
<b>The crisis management</b>	Human knowledge	0.635	0.000
	Human capabilities	0.652	0.000
	Human skills	0.742	0.000
	Human behaviour	0.727	0.000

### DISCUSSION

Please take note of the following information from the questionnaire results:

**Section 1: Personal and Occupational Data:** Most survey respondents were females in the age group of 30-40, with the highest percentage holding a bachelor's degree (65%).

**Section 2: Human Knowledge:** In the first axis, the item "the workers can practically apply the knowledge they possess" received the highest average score of 3.558, which falls under the agreed category.

The item "the workers have sufficient knowledge of the standard criteria approved for performing the tasks" obtained the lowest average of 3.093, falling under the neutral category.

**Section 2: Human Capabilities:** The highest average (3.558) was for the item "hospital workers can use technical equipment," falling under the agreed category. The items "the hospital staff can manage and invest time" and "the hospital staff applies the systems and plans elaborately developed" had the lowest averages of 2.976, falling under the neutral category.

**Section 2: Human Skills:** The highest average (3.673) was for the item "the workers have good dealings with superiors and subordinates in the hospital", falling under the agreed category. The item "the hospital administration analyzes the levels of workers to determine their strengths and weaknesses" had an average of 2.906, falling under a neutral category.

**Section 2: Human Behaviours:** The items "the behaviours of hospital workers agree with the general objectives of the hospital" and "the behaviours of hospital workers agree with the behaviour and ethics of the profession" had the highest averages of 3.627, falling under the agreed category. The item "the hospital administration develops affection and trust between it and the employees" had an average of 3.093, falling under a neutral category.

**Section 3: Crisis Management:** The hospital administration deals with all the damage caused by crises had the highest average of 3.418, falling under the agreed category. The hospital is keen to provide a crisis management team with high knowledge and skills to deal with crises had the lowest average of 3.11.

Based on data analysis and hypothesis testing, it was found that administrative competencies (human knowledge, human capabilities, human skills, and human behaviours) have a positive relationship with crisis management in Benghazi Medical Hospital. The Spearman’s Rho Test revealed high positive correlation values for human skills and human behaviour (0.742 and 0.727, respectively), and medium correlation for human knowledge and human capabilities (0.635 and 0.652, respectively).

### CONCLUSION

During the discussion of the study results, we concluded the following points: **1)** Benghazi Medical Hospital provides the necessary support for its personnel; **2)** The personnel at Benghazi Medical Hospital possess the knowledge and skills to effectively handle crises; **3)** Personnel at Benghazi Medical Hospital are capable of properly assessing crises; **4)** Benghazi Medical Hospital analyzes the skill levels of its employees to identify their strengths and weaknesses; and **5)** The behaviour of individuals working at Benghazi Medical Hospital aligns with the professional standards and ethics of the field.

## RECOMMENDATIONS

Based on the research study, we recommend the following: **1)** The hospital staff should have adequate knowledge of the approved standard criteria for their tasks; **2)** The hospital workers should be able to use technical equipment proficiently and effectively; **3)** The hospital administration should offer ongoing training programs to enhance the skills of its staff; and **4)** The behaviour of the hospital personnel should align with the overall objectives and work ethics of the hospital.

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