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# Requirements of Educational Crises Management in Public Jordanian Universities in Light of the Emerging COVID-19 Pandemic and its Variants

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ABSTRACT This study explored the educational crisis management requirements in public Jordanian universities amid the COVID-19 pandemic and its variants. A descriptive cross-sectional design was employed, and a stratified random sample of 1560 faculty members was selected. A valid and reliable questionnaire was used to identify crisis management requirements. The results revealed that teamwork had the highest mean score (3.40), followed by communication systems (3.23) and leadership skills (3.20), all with moderate degrees. Planning (3.02) and data domains (2.90) ranked lower. No significant differences were found based on academic rank, but differences were observed due to years of experience and university affiliation. The study highlights the need for effective crisis management in higher education during public health emergencies.

#### INTRODUCTION

The term 'crisis' began to appear clearly in the 1930s, with the development of economic and financial crises. They soon moved from medical sciences to various branches of knowledge, including social, economic and educational sciences (Coombs and Laufer 2018). In the 21st century, crises do not know barriers or separating geographical boundaries, as they can appear at the individual level, take on more influential dimensions at the institutional level, and become a crisis of the institutions of an entire nation, culminating in international crises (Pursiainen 2017). The COVID-19 crisis, which threatens the entire world, constitutes a turning point in the development of the disease, anxiety, and psychological pressure on the present and the future, both morally and economically, on the societal and educational system (Abbas 2021).

The University of Memphis (2015) identified levels of the university crisis, like limited crisis, issues leading to crises, and significant crises (Young 2015; Moerschell and Novak 2020). Crises go through several stages, including the emergence, growth, decline, and recovery (Al-Qubati 2018; Al-Thafr and Al-Amoud 2019; Bhaduri 2019; Kamei 2019). Educational institutions utilise multiple strategies to address crises, emphasising participation

with their employees and leadership in collective thinking (Al Eid and Arnout 2020; Samawi 2021).

Researchers have reported various causes of educational crises, dividing them into external and internal causes (d'Orville 2020; Kowalski 2019). Management of educational crises is a continuous and stable entity, and it represents a purposeful activity carried out by the management of the educational institution to understand the nature of risks and their causes and processes (Culbertson and Constant 2015; Khalil 2016).

Deming (2018) confirmed that the requirements for managing educational crises include planning, organisation, using information systems, focusing on communication skills, leadership skills, and work teams (Farazmand 2007; Mestry 2017; Naviwala 2016). The requirements of crisis management involve the availability of physical elements, the human element, and the administrative element (Madigan 2017).

## Objectives of the Study

The objectives of this study are to:

1. Investigate the requirements of educational crisis management in public Jordanian universities during the COVID-19 pandemic and its variants.

- Examine the impact of faculty members' academic rank and years of experience on their perception of crisis management requirements.
- Identify the differences between universities in terms of educational crisis management requirements.

#### **Statement of Problem**

Despite the multiplicity and different crises that higher education institutions are exposed to, and each of the crises has its distinctive features. it needs material, administrative and human requirements to manage it in accordance with its nature, in light of global attempts to limit the spread of the COVID-19. For example, the researchers find that some countries, including the Hashemite Kingdom of Jordan, have taken many preventive measures in confronting it by closing schools, universities and student gathering places throughout the governorates, and for the continuity of the educational process, the Ministry of Higher Education and Scientific Research has given utmost importance to e-learning (distance learning) as an effective tool for easy access from anywhere, allowing students at different levels of study and specialisations to complete their studies via the Internet and social networks as an opportunity to try this new feature and invest it in raising awareness of using the tools available on the various e-learning platforms, in addition to enhancing the skill of searching and looking up for knowledge easily and using many options to continue the march despite the current circumstances, the idea of distance learning is based on several methods, including the explanation of lessons through video chat lectures between the teacher and students at certain times and through (Zoom, Microsoft Teams, BBB) techniques and sharing files (PDF, PowerPoint, Word).

Several studies, including the study of Khalil (2016) and Pedersen et al. (2020), indicated that the occurrence of crises is an inevitable reality. Suppose its dimensions, forms, and degrees vary from one country to another. In that case, educational institutions will face it and affect it and the safety of its members and properties, and cause a state of distress or imbalance in the administrative organisation, especially in the absence of prior preparation to face crises.

By virtue of the researcher's work in the administrative and academic field, he noticed some difficulties and challenges facing crisis management in universities, including, but not limited to, the poor level of awareness and skill of some leaders and elements of the educational process by finding random solutions to manage the COVID-19 crisis within the educational institution, as well as the absence of preparation (Clarke and O'donoghue 2017), training and rehabilitation programs in the field of managing the COVID-19 crisis, which imposed a new life pattern and charted new paths in several areas, including academic institutions, which sometimes led to confusion of decisions, the absence of integrated plans and perceptions about administrative mechanisms and methods for dealing with the educational crisis, in addition to the scarcity of teachers' involvement, especially those who are experienced and competent in managing the crisis, and the shortcomings of the strategies used in crisis management, defining responsibilities and providing the necessary technical elements for this. Ababneh and Ashour (2018) indicated that the role of university administrations is limited to dealing with the effects of crises after their occurrence, and one of the other challenges is the lack of specialised teams in Jordanian universities to deal with crises that these universities may be exposed to throughout the country.

Accordingly, the success of official government universities in managing crises in light of the COVID-19 pandemic depends to a large extent on providing the requirements for managing educational crises in terms of material, human and administrative energies. Based on the preceding, the problem of the study is summarised in answering the following questions:

- 1. What is the reality of managing educational crises in public Jordanian universities?
- What are the requirements of educational crisis management in official Jordanian universities (physical, administrative, and human) from the point of view of the deans of faculties, their deputies, heads of academic departments, and teachers in light of the COVID-19 pandemic?
- 3. Are there statistically significant differences at the significance level ( $\alpha \le 0.05$ ) in the mean scores of the study participants' responses to the requirements of manag-

ing educational crises in public Jordanian universities due to the variables of university, job description, years of experience, and/or academic rank?

#### **Research Objectives**

The study had the following research objectives:

- To illustrate crisis management in terms of its concept, characteristics, causes and requirements, and the most critical crises facing educational institutions at the level of Jordanian public universities.
- To investigate the reality of managing educational crises from the viewpoint of faculty members in official Jordanian universities and the most critical crises facing universities in light of the spread of the COVID-19 epidemic.,
- 3. To identify the requirements for managing educational crises in official Jordanian universities in light of the COVID-19 pandemic, according to the variables of the type of university, job description, academic rank, and years of experience.
- Identify the requirements for managing educational crises (physical, administrative, and human).

#### **Research Significance**

The study gains its significance in the following points.

#### Theoretical Significance

- The significance of the university education stage as it represents a future stage in determining one's destiny and is exposed to various crises in terms of dimension, shape, and size that differ from the previous stages.
- The importance of the subject of the study discusses an important issue in the management of the educational institution in general and higher education institutions in particular through crisis management, and it is one of the approaches to modern management to provide solutions to the problems resulting from the communications revolution, the explosion of knowledge and technological development.

#### Practical Significance

The importance of the study from a practical point of view:

- Is expected to benefit from the results of the study by identifying the best requirements needed by the presidents of public and private universities, deans of colleges, heads of academic departments, and teachers in directing plans and training programs in the field of professional development for academic leaders in universities on how to manage educational crises.
- The scarcity of research that seeks to determine the requirements (material, administrative, and human) necessary for crisis management in universities, up to the knowledge of the researcher, as most studies have been important in strengthening the theoretical efforts of researchers in relation to educational crises in the vicinity of the school environment in all its stages at the level of basic education.
- Provide a procedural description of the crisis to make decisions related to managing educational crises in the time of the spread of the COVID-19 pandemic, from which researchers can benefit in conducting future studies in this field through the results and recommendations of the study.
- Draw the attention of planners and senior administrative leaders to the importance of strategic planning and link it to methods of managing educational crises at the level of the higher education sector.

#### **Conceptual and Operational Definitions**

- A crisis is a sudden and unexpected event that carries a threat to the system. It requires a set of quick measures, necessary preventive plans, and effective response to confront the crisis, reduce its negative effects, and achieve the greatest amount of positive results (Zamoum and Gorpe 2018).
- A crisis is defined operationally as a state of disorder and disturbance that affects the normal functioning of the educational institution in its organisations and re-

sources as a result of sudden and unexpected circumstances, characterised by threats, events, lack of information, time pressure, and overlapping causes with results, and this requires mobilising all efforts to get rid of its negative effects. It is represented by the domains and items contained in the questionnaire to deal with and is measured by the degree to which the study participants obtain through their responses to the data collection instrument.

- educational crisis management is a critical and decisive turning point that leads to a state of imbalance and turmoil in the educational institution system and loses the ability to solve correctly, and creates a state of imbalance among decision-makers in the ability to achieve educational goals, which has an impact on study plans, academic programs and activities, which requires immediate action to prevent its aggravation and to return things to their normal course in the fastest time and least effort and time as possible (Khalidi et al. 2021).
- The management of educational crises is defined operationally as the scientific and administrative methodological processes carried out by the official universities and their employees (the study sample) that contribute to avoiding the occurrence of crises through the development of preventive programs and the optimal use of the information and the material and human capabilities available at the university. It is measured by the mean score obtained by the study sample through their responses to the educational crisis management requirements scale, which includes (45) a paragraph distributed over five areas.
- Crisis management requirements are all the available administrative, human, and material requirements that allow the implementation of the administrative process with modern, systematic scientific methods that contribute to the effective implementation of crisis management or efficiently confronting it when it occurs (Ritchie and Jiang 2019).
- The requirements of crisis management are defined operationally as everything that must be provided and implemented effec-

tively at the level of physical data (communication systems, computerised programs, budget), and management's methodology in dealing with crises (systems and regulations to prevent risks, the pattern of communication between employees), and the level of human resources (qualified, trained, backup cadres, specialists and technicians), in order to confirm the success of educational crisis management in higher education institutions, which is beyond the questionnaire and to deal with it with a set of procedures related to the material and human elements. measured by the degree to which the study participants obtain with through their responses to the data collection tool used in this study.

#### Limits of the Study

Human limits: The participants were limited to all deans of faculties, their deputies, heads of academic departments, and faculty members of different academic ranks of both sexes (males and females) in the official Jordanian universities specified for the study.

*Time limits:* The study was applied to the second semester of 2020-2021.

**Locative limits:** The study was applied in the universities of The University of Jordan, the Hashemite University, Jordan University of Science and Technology, Yarmouk University, Tafila Technical University, Al-Hussein Bin Talal University, and Mutah University.

**Topical limits:** This study was limited to studying the requirements of educational crises (physical, administrative, and human) management in official Jordanian universities from the point of view of the deans and their deputies, heads of academic departments, and faculty members. The study included a questionnaire distributed over five areas of planning, information, communication, leadership skills, and finally, teamwork.

## **Study Variables**

The variables of the current study were determined as follows.

*Independent variables* include the university (the University of Jordan, the Hashemite Uni-

versity, Jordan University of Science and Technology, Tafila Technical University, Al-Hussein bin Talal University, Mutah University, AlAl-Bayt University), the job description variable (faculties' deans, vice deans, heads of academic departments, faculty members), years of experience (less than ten years, 10-15 years, 16-20 years, more than 20 years), and academic rank (professor, associate professor, assistant professor, teacher).

**Dependent variables** are estimates of deans of faculties, their deputies, heads of academic departments, and faculty members for the requirements of managing educational crises in public Jordanian universities.

#### **Previous Studies**

Some Arab and foreign studies dealt with crisis management in education, including Al-Hajri's (2020) study, which aimed to assess the reality of crisis management in middle schools in the State of Kuwait from the point of view of teachers working with both sexes. The results of the study showed a weakness in the educational crisis management in middle schools, the ineffectiveness of the rapid intervention teams in managing crises when they occur, and the lack of interest in distributing tasks, roles and responsibilities to members of the crisis management team before and during the crisis.

The results of Al-Zoubi's (2019) study also indicated that the reality of crisis management practice in Jordanian public universities from the point of view of the faculty members came in general to a moderate degree, as the communication domain was at a high degree (3.68), followed by planning (3.60), and then decision-making (3.56). Finally, the information domain got a mean score of (3.47).

The study of Al-Thafr and Al-Amoud (2019) aimed to identify the powers of school leadership in managing crises in primary schools in Riyadh from the leaders' point of view. The results revealed that the implementation of the crisis management authorities granted to the leaders of primary schools came to a high degree. It was not clear that there were statistically significant differences between the mean scores about the authorities granted to the leaders of primary schools due to the study variables (the academic qualification and the years of administrative experience).

The study conducted by Abdel-Rahman (2019) also revealed that the reality of crisis management at Al-Balqa Applied University came to a medium degree, with statistically significant differences between less than 5 years, and 11 years and more, and the differences came in favour of faculty members who have years of experience equal to 11 years or more, while Al-Qubati's study (2018) showed that the degree of reality of crisis management in basic and secondary schools was weak in the domain of information and communication, while it was medium in three areas of leadership, planning and crisis management work teams.

While the results of the study of Ababneh and Ashour (2018) showed that the responses and estimations of the sample members were moderate to the reality of crisis management, and the order of the domains of the study included communication, planning, decision-making, and crisis management team, while the information-related dimension ranked last. The results of the study indicated that there was an effect of the variable of gender in favour of males, while there was no effect of the variable of the academic rank of faculty members in their perception of the reality of crisis management in universities.

While Sarras's (2015) study concluded that the reality of crisis management in private schools was good and that the most prominent reasons for the occurrence of crises in the school are the school's environment and location, a large number of errors among administrators, and the gap between administrators and teachers. In addition, the results showed the absence of statistically significant differences between the estimates of the study participants of the reality of crisis management in private schools is attributed to the variables of gender, educational qualification, years of experience, and governorate, while there were differences due to the job title variable.

Al-Yousifi's (2015) study confirmed that there are statistically significant differences between the average degrees of estimation of the extent of general secondary education in Syria and teachers on crisis management in secondary schools due to the variable of job title and the absence of differences in crisis management (before, during and after the crisis) due to variable (number of years of experience).

The study conducted by Al-Zoubi (2014) revealed the availability of crisis management ele-

ments in the directorates of education in the Irbid governorate to a high degree, while there were no statistical differences in the degree of availability of crisis management elements due to the variables of gender and experience.

Abdel-Wahab and Al-Mursi's (2014) study revealed the presence of statistically significant differences in determining school crises in favour of female schools, in addition to the presence of statistically significant differences (at level ∞≤0.05) of the obstacles to managing school crisis faced by secondary school principals in favour of female schools. In addition, the study found no significant statistical differences related to the requirements of school crisis management due to the variable of the type of school and educational area.

The results of Khabrani's (2014) study also found that the most critical crisis management methods are the scientific methods in the first place, followed by the teamwork method and that the most prominent obstacles facing the use of crisis management methods include the large number of tasks assigned to the school principal and the routine nature of the work, as well as the lack of availability of a comprehensive and integrated database in the field of school crisis management.

Adamson and Peacock (2007) studied the role of planning and its relationship in managing crises facing schools from the point of view of psychologists in American public schools and the crisis-handling teams they are exposed to, using a sample of (228) psychologists. The results show that 95 percent respondents confirmed the existence of plans to deal with crises in their schools, 83 percent confirmed the presence of crisis management teams in their schools concerned with helping workers and students, cooperation, coordination and communication with the media, and 93 percent had faced serious crises in their schools, while 98 percent of the specialists receive some form of training to acquire skills for dealing with crises and the importance of strategic planning in managing crises facing schools to help them reduce their negative effects and reduce human and material losses to a minimum.

While the study of Adams and Kritsonis (2006) aimed to analyse crisis management plans in schools that experienced crisis in the past in Houston city, wherein the results of the study concluded that school principals should be given a

wide-ranging role in crisis management and planning more effectively during the occurrence of the crisis.

# Distinctions of the Current Study From Previous Studies

This study is characterised by its handling of the requirements of managing educational crises in the official government universities in the Hashemite Kingdom of Jordan in light of the COV-ID-19 pandemic within the limits of the researcher's knowledge, methods of managing educational crises in light of the COVID-19 pandemic and its variants.

#### METHODOLOGY

#### Research Design

To achieve the objectives of the research and based on its nature, the descriptive analytical approach was used, which attempts to describe and explain the phenomenon in question qualitatively and quantitatively, and to clarify its size and degree of correlation with others, to monitor the requirements of managing educational crises using appropriate statistical processing to reach and generalise the results.

#### Research Population and Study Sample

The original study population was 5,460, which consisted of all deans of the faculties, dean deputies, heads of academic departments, and members of the teaching staff in the official Jordanian universities who were on the job during the academic year (2020-2021) across the 8 public universities, namely, The University of Jordan, the Hashemite University, Jordan University of Science and Technology, Yarmouk University, Tafila Technical University, Al-Hussein Bin Talal University, Mutah University, Al Al-Bayt University, according to the statistics of the Ministry of Higher Education and Scientific Research for the year (2019-2020).

#### The Study Sample

The study sample consisted of 1,560 teachers, which is 28.57 percent of the original popula-

tion. The samples were drawn by the stratified random method, wherein the researchers classified the society (strata) according to its characteristics, and one can then get a simple random sample from the smallest category. Eventually, the researchers obtain a stratified random sample representing the characteristics of the original research population. Table 1 shows the study population and the study sample who were selected according to some variables (university, academic rank, job description, years of experience).

#### **Data Collection Instrument**

The questionnaire development steps included answering the study's questions, for which a questionnaire was developed to identify the reality of educational crises management in Jordanian public universities to collect the necessary information and data so that the questionnaire would be an appropriate and suitable tool for obtaining accurate information, data and facts related to a specific reality. The questionnaire was designed according to the following steps:

To draft the questionnaire items in its initial form, the researcher reviewed the educational

literature related to the topic and related previous studies about scales measuring educational crisis management (such as Al-Sabah et al. 2020; Al-Hajri 2016; Al-Yousifi 2015; Khabrani 2014; Al-Juhani 2010) to develop the educational crisis management scale at the academic level in the official Jordanian universities.

- Then, several university professors in the field of education, psychology, curricula, teaching methods, and educational administration were consulted regarding determining the domains and items of the questionnaire.
- The researcher was keen to conduct several interviews of an informal nature with some employees in the official Jordanian universities with experience in the field of crisis management and educational guidance management to determine the statements of the questionnaire.
- The questionnaire's statements were formulated taking into account the following conditions, that is, these paragraphs serve the objectives required to be achieved in the study based on the title of the study and that their language is sound, clear, un-

Table 1: Baseline characteristics of the study population and sample recruited from Jordanian public universities according to specific variables

University variable	Popul- ation	Recruit- ment (%		Job descrip- tion variable	N	%
The University of Jordan	1405	28.61	402	Deans	115	7.37
The Hashemite University	774	28.55	221	Vice Deans	113	7.24
Jordan University of Science and Technology	848	28.65	243	Heads of Academic Departments	432	27.69
Yarmouk University	937	28.60	268	Teaching Staff	900	57.70
Tafila Technical University	128	28.61	36	Total	1560	100
Al-Hussein Bin Talal Universi	ty 338	28.40	96	Years of experi- ence variable	N	%
Mu'tah University	613	28.54	175	Less than 10 year	rs 185	11.85
Al Al-Bayt University	417	28.53	119	11 - 15 years	570	36.54
Total	5460	28.57	1560	16 – 20 years	432	27.70
Academic rank I	Population	Recruitment	Recruitment (n)	More than 20 years	373	23.91%
		· · ·		<u> </u>		
Professor	1849	28.55	528	Total	1560	100
Associate Professor	1731	28.59	495			
Assistant Professor	1360	28.60	389			
Lecturer (A+B)	520	28.46	148			
Total	5460	100	1560			

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- derstandable and appropriate for all respondents from the study sample, and that the statements of the study tool are characterised by diversity, and that each statement has a specific objective that measures an area in each domain of study.
- The questionnaire was divided into two parts. The first section includes the questionnaire's introduction, its objective, and the variables on which the study is based, which are, university name, job description, academic rank, and years of experience, and the second section includes the questionnaire's items addressed to the deans of colleges and deputies, heads of academic departments, and faculty members in Jordanian public universities throughout the Jordanian governorates, and at various academic ranks, distributed over five areas of planning, information, communication, leadership skills, and teamwork.

# Validating the First Version of the Study Questionnaire

• Content validity: The questionnaire in its initial form was presented to 10 experts at Princess Alia University College, Shoubak University College, Salt College for Human Sciences, and College of Economics and Business to ensure the validity of the questionnaire from a scientific point of view, and the extent of its representation for the purpose for which they were developed, evaluating the clarity of the instructions in the first section of the questionnaire, ensuring the linguistic integrity of the formulation of the statements, and being guided by their opinions about what was included in the questionnaire, and the extent to which the

- statements belong to each domain in terms of modification, deletion, and addition.
- The questionnaire in its final form incorporated the opinions, directions, and observations of the experts into the sections, and Table 2 shows the number of items, their numbers, and their distribution over the domains in their final form.
- Questionnaire scoring: Each item of the questionnaire will be answered based on the rule of mathematical approximation. The values of the mean scores of the answers of the study sample participants were scored as shown in Table 3.
- To ensure the reliability of the study questionnaire, the researcher adopted the method of test-retest and the method of measuring internal consistency.
- Internal consistency: The correlation coefficients of the statements with the total scale and the domains to which they belong were extracted to check the internal consistency validity of the scale through a pilot sample (excluded from the original study sample) (n=30) of teachers to find out whether the scale has validity and suitability for the current study, and the extent of the validity of the internal consistency, and the correlation of the statements in the domains of educational crisis management requirements with the tool as a whole. The questionnaire was applied to the pilot sample on 01-26-2022.
- Test-retest reliability: The researcher applied the questionnaire to a sample of 30 teachers excluded from the original study sample. Then, the researcher re-applied the questionnaire to the same group after two weeks on 11-02-2022. After that, the correlation coefficient was calculated (Pearson's correlation coefficient) between the partici-

Table 2: Questionnaire items, numbers, and distribution over the questionnaire domains (Final version)

S.No.	Domain	Number of items	Order	%
1	The domain of planning and its role in managing educational crises	8	1 - 8	18
2	The domain of information and its role in managing educational crises	9	9 - 17	20
3	The field of communication systems and its role in managing educational crise	s 8	18 - 25	18
4	The domain of leadership skills and its role in managing educational crises	13	26 - 38	29
5	The domain of the work team and its role in managing educational crises	7	39 - 45	15
	Total	45	45	100

Table 3: Scoring and categories of the mean scores and correspondence degrees adopted to judge the degree of the significance of the requirements of educational crises management in the official Jordanian universities

Mean score	Estimation	Mean score	Estimation	Scale options	Degree
4.2-5	Very highly agree	4.3-5	High degree requirement	Always	5
3.4-4.19	Highly agree	2.6-3.39	Moderate degree requirement	Often	4
2.6-3.39	Moderately agree	1-2.59	Low degree requirement	Sometimes	3
1.8-2.59	Weakly agree			Rare	2
1-1.79	Disagree			Never	1

pant's scores in the first and second applications. Table 4 shows the internal consistency coefficient according to Cronbach's alpha equation, Pearson's correlation coefficient, and the tool.

It is noted from the previous Table 4 that the value of Cronbach's alpha coefficient ranged between (0.76 - 0.85), and the value of Pearson's correlation coefficient was high as it ranged between (0.76 - 0.79) for the total degree and domains and significant at the significance level (0.05), which indicates the reliability of the study questionnaire and its validity for application. The total correlation with the domains has been measured, as shown in Table 5.

It is evident from Table 5 that the correlation of the total with the domains ranged between (\*\*0.801 - \*\*0.869), which is a high correlation indicating that the questionnaire items are homogeneous in measuring the study variables.

#### **Research Procedure**

The concerned authority was contacted to obtain approval for facilitating the task of applying the questionnaire and circulating it to all official universities specified in the study, after the approval of the university administration. Then the questionnaire was distributed in two ways, that is, the personal method and the electronic method on teachers' emails between 03-20-2022 and 04-15-2022. Finally, valid and complete paper and electronic questionnaires (n=1560) were collected to unload their data.

#### **Data Processing**

The study used the Statistical Package of Social Sciences (SPSS) (v. 26, IBM Corp, Chicago, IL, USA) to analyse the participants' respons-

Table 4: Cronbach's Alpha and Pearson correlation coefficients for the questionnaire items (first and second applications)

Domain	Cronbach's Alpha	Significance	Pearson's correlation coefficient	Significance
Planning	0.76	Significant at (0.05)	0.78	Significant at (0.05)
Information	0.82	Significant at (0.05)	0.79	Significant at (0.05)
Communication system	ns 0.81	Significant at (0.05)	0.78	Significant at (0.05)
Leadership skills	0.85	Significant at (0.05)	0.79	Significant at (0.05)
Teamwork	0.84	Significant at (0.05)	0.76	Significant at (0.05)
Total	0.82	Significant at (0.05)	0.78	Significant at (0.05)

Table 5: Correlation coefficients between the total scale score and the domains

	Correlation	Planning	Information	Communication system	Leadership skills	Teamwork
Requirements for managing educa- tional crises in Jordanian public universities	Pearson's Sig No. of statements	0.831** 0.000 8	0.869** 0.000 9	0.817** 0.000 8	0.801** 0.000 13	0.855** 0.000 7

<sup>\*\*</sup> The correlation is statistically significant at the significance level (0.05).

es. Descriptive statistics (frequencies, percentages, means, and standard deviations) were used to analyse the participants' responses to the questionnaire domains. Univariate analysis (independent samples t-test and One-Way Analysis of Variance (ANOVA)) was used to identify differences in the participants' responses regarding their socio-demographic characteristics.

#### **RESULTS**

To answer this question, which states, what is the reality of educational crisis management in public Jordanian universities from the point of view of the sample as a whole, mean scores, standard deviations, and ranks were extracted for each questionnaire domain and arranged in descending order. The results were as shown in Table 6.

The results presented in Table 6 show that the total mean score of the questionnaire domains as a whole was medium, where the arithmetic mean was 3.14 and standard deviation was 0.53, while the value of the arithmetic averages in the five domains, according to the rank was as follows. The first rank concerning the importance of the requirements for managing educational crises in official Jordanian universities in light of the COV-ID-19 pandemic were for the fifth domain (teamwork), as it reached an arithmetic mean of 3.40 and a standard deviation of 0.54, which is a high degree. In the second rank was the third domain (communication systems), which reached the mean of 3.23 and standard deviation of 0.48, and was estimated as a medium degree. In addition, in the third rank was the fourth domain (leadership skills), the arithmetic mean was 3.20 and the standard deviation was 0.51 and a medium degree, while the fourth rank was for the first domain (planning) with a mean score of 3.02 and a standard deviation of 0.81, which is also a medium degree, followed by the fifth and final rank that was for the second domain (information) with a mean score of 2.90 and a standard deviation of 0.63 and a medium degree. This result is due to the importance of educational crises management skills in official Jordanian universities and the applicable organisational values, the extent to which they are constantly informed of the latest developments and new and urgent developments in this domain, and knowledge of the most important and widespread educational crises and how to deal with the crisis during its occurrence and prevention and speed in response and decision-making to solve it, as well.

For the second research questions, that is, what are the requirements for managing educational crises in official Jordanian universities (financial, administrative, and human) from the point of view of the deans of faculties, their deputies, heads of academic departments, and teachers in light of the COVID-19 pandemic, means, standard deviations, and ranks were calculated in descending order for the responses of the study participants as a whole to the questions related to the domain of educational crisis management requirements in Jordanian public universities, as shown in Table 7.

The results presented in Table 7 show that the value of the mean scores of the responses of the sample members to the statements in the planning domain (8 statements) ranged between 2.17 and 3.44 with varying degrees between high, medium and low, and this confirms that all items of this domains represent important requirements of management crises of varying degree and that the requirements that received the highest degree of importance in this domain according to the perspectives of the study sample. They were represented in the following descending order of (item (1) rank (1)) with a mean score of (3.44) and a standard deviation (1.20) with a high degree, and (item (5) rank (2)) with a mean score of (3.36)

Table 6: Means, standard deviations, and ranks for each domain (in descending order)

Rank	No.	Domain	Mean score	Standard Deviation	Estimation
4	1	Planning	3.40	0.54	Moderate
5	2	Information	3.23	0.48	Moderate
2	3	Communication system	3.20	0.51	Moderate
3	4	Leadership skills	3.02	0.81	Moderate
	5	Teamwork	2.90	0.63	High
	Total		3.14	0.53	Moderate

Table 7: Means, standard deviations, and ranks for the study participants on the questionnaire items

		First: Planning and its role in educational crisis managen	ient		
Rank	No.	Statement	М	SD	Degree
l	1.	The university administration involves the deans, heads of academic departments, and teachers in planning to face educational crises.	3.44	1.20	High
3	2.	The university administration trains academics to face educational crises through training procedures.	3.22	1.17	Moderat
7	3.	The university administration adopts preventive measures to contain the crisis before it occurs.	2.81	0.79	Moderat
5	4.	The university administration allocates an independent short- and long-term backup budget to confront and address educational crises.	2.97	0.87	Moderat
2	5.	The university administration has pre-prepared solutions to address the effects of crises and control their expected results.	3.36	1.10	Moderat
3	6.	The university administration puts systems and regulations for safety and preventing dangers in place.	2.17	0.91	Low
5	7.	The university administration is preparing alternative scenarios through developments for the different paths in which the crisis appears.	3.10	1.06	Moderat
1	8.	The university administration uses planning specialists when preparing educational crisis management plans.	3.14	1.00	Moderat
		Second: Information and its role in educational crisis manag	ement		
Rank	No.	Statement	М	SD	Degree
)	9.	The university administration relies on advanced computer programs	2.15	0.90	Low
l	10.	to organise databases. The university administration has a database for managing	3.57	1.34	High
7	11.	educational crises. The university administration maintains a backup copy of the	2.52	0.87	Low
5	12.	information to ensure it is not damaged or lost during educational crises. The university administration is interested in collecting accurate	2.94	0.82	Low
5	13.	and error-free information that meets crisis management requirements.  The university administration is keen to tabulate the information on the objectional crisis to facilitate reference to it promptly.	2.86	0.64	Moderat
2	14.	on the educational crisis to facilitate reference to it promptly.  The university administration, in cooperation with work team	3.34	0.97	Moderat
3	15.	members, analyses information on educational crises. The university administration focuses on developing electronic	2.47	0.85	Low
3	16.	readiness systems to manage educational crises.  The university administration updates the database according to any	3.11	0.84	Moderat
1	17.	new educational crises.  The university administration maintains the security and confidentiality of information in a closed information system to reduce the risk of crisis.	3.08	0.85	Moderat
		Third: Communication system and its role in educational crisis m	anager	nent	
Rank	No.	Statement	М	SD	Degree
7	18.	The university administration determines how to contact students and	3.11	0.91	Moderat
3	19.	their parents during educational crises.  The university administration sets the table with the phone numbers	3.08	0.87	Moderat
3	20.	of all university employees to communicate with them when necessary. The university administration has multiple and varied communication	3.38	0.76	Moderat
5	21.	systems for managing educational crises. The university administration finds communication channels with	3.17	0.72	Moderat
l	22.	government agencies during educational crises.  The university administration is making the necessary contacts	3.42	0.65	Moderat
1	23.	quickly to limit the aggravation of the damages of the educational crisis. The university administration goes beyond formal communication channels in transmitting and exchanging information in complex educational crises.	3.20	0.55	Moderat

Table 7: contd..

		Third: Communication system and its role in educational crisis manag	ement		
Rank	No.	Statement	M	SD	Degree
2	24.	The university administration adopts an open door policy during internal communications operations to face the consequences of the crisis.	3.38	0.70	Moderate
6	25.	The university administration organises the communication process between the deans, heads of academic departments, and teachers of the educational crisis at the university in coordination with external support bodies and bodies.	3.13	0.76	Moderate
		Fourth: Leadership skills and their role in educational crisis manage	ment		
Rank	No.	Statement	M	SD	Degree
5	26.	The university president possesses skills that qualify them to control the educational crisis.	3.27	0.73	Moderate
8	27.	The university's president pays attention to the element of time in making decisions when educational crises occur.	3.27	0.73	Moderate
9	28.	The university's president has sufficient experience to help make decisions in sudden emergencies.	3.00	0.46	Moderate
7	29.	The university's president works to raise the morale of deans, heads of academic departments, and teachers when an educational crisis occurs.	3.18	0.55	Moderate
11	30.	The president of the university positively exploits the educational crisis and uses it for the benefit of the university.	2.92	0.77	Moderate
4	31.	The university president and teachers follow the method of understanding in solving educational crises.	3.32	0.72	Moderate
10	32.	The university president can analyse the educational crisis into its primary elements.	2.97	0.48	Moderate
13	33.	The university's president has leadership that depends on innovative thinking to propose alternatives in the management of dealing with the crisis.	2.85	0.64	Moderate
12	34.	The university's president is keen to use strategies and technical means in partnership with the academics at the university to put immediate measures to prevent the crisis from worsening.	2.91	0.89	Moderate
3	35.	The university's president grants the deans enough freedom to manage the educational crisis and follow up on the event.	3.59	1.26	High
2	36.	The president of the university is keen to motivate teachers to participate in the management of dealing with crises.	3.60	1.34	High
1	37.	The university president is keen not to spread rumours and exaggeration about educational crises to avoid aggravating their occurrence.	3.70	1.16	High
6	38.	The university's president communicates with the local media to benefit from spreading the required awareness about educational crises and their impact on the university and society and ways to avoid them or limit their effects.	3.20	0.63	Moderate
		Fifth: Teamwork and its role in educational crisis management			
Rank	No.	Statement	М	SD	Degree
6	39.	Multiple different task forces are formed to solve many potential educational crises.	3.04	0.36	Moderate
4	40.	It is concerned with providing deans, heads of academic departments, and teachers with tools and devices for rapid communication to contact	3.11	0.55	Moderate
5	41.	them in the event of risks.  The university has distinguished academic competencies capable of dealing with educational crises.	3.09	0.52	Moderate
3	42.	The team members with the intelligence, advanced planning, experience, and know-how to address the signs of the educational crisis are selected.	3.71	1.16	High
2	43.	and know-now to address the signs of the educational crists are selected.  It is concerned with providing reserve cadres to work during emergencies and educational crises.	3.87	1.09	High
7	44.	Training programs provided by specialised experts are available to	2.93	0.80	Moderate
1	45.	employees to help them cope with educational crises.  There are opportunities for department heads and academics to participate in training workshops in educational crisis management.	3.93	1.04	High

and standard deviation (1.10), and (item (2) rank (3)) with a mean score of (3.22) and a standard deviation of (1.17). This result sheds light on the importance of studying the causes leading to educational crises and their relationship in general to the university's surroundings, its academic, administrative, material, and infrastructure status, with the importance of the university administration's preparedness with all its cadres and staff to deal with emerging and unprecedented events. Whereas the requirements for managing educational crises that got the lowest ranks from the point of view of the research sample members were as follows, and they are arranged in descending order according to the mean scores, that is, (item (4), rank (6)), (item (3) and rank (7)) and (item (6) and rank (8)), and this is an indication of the insufficient attention on the part of university administrations to the importance of proper planning for crises. However, their interest is limited to the expected crises, with a lack of interest in increasing and organising intensive courses concerning the requirement of planning and being satisfied only with what is entrusted to them of official office work.

The previous results are consistent with the findings reported by Al-Thafr and Al-Amoud (2019), who found a high degree of planning domain requirements. In contrast, these findings are not in line with the findings reported by Al-Zoubi (2019), who found a significant weakness in the planning domain.

It also appears from Table 7 that the value of the mean scores for the responses of the study participants to the items of the information domain (9 items), ranged between 2.15 and 3.57 with varying degrees between high, medium and low, which confirms that all items of this domain represent essential requirements of crisis management to varying degrees, and that the requirements that received the highest degree of importance in this domain according to the views of the study participants were as follows, that is, (item (10) rank (1)) with a mean score (3.57) and a standard deviation (1.34) with a high degree, and (item (14) rank (2)) with a mean score of (3.34) and a standard deviation (0.97), and (item (16) rank (3)) with a mean score (3.11) and a standard deviation of (0.84), while the educational crisis management requirements that got the lowest ranks from the point of view of the study participants

were as following in descending order according to the mean score, that is, (item (11), rank (7)), (item (15), rank (8)), (item (9) and rank (9), and this confirms the importance of the availability of requirements for obtaining the necessary information related to the university through the availability of a confidential database for the ability to quickly respond, deal with educational crises during their occurrence and prevent them, and point out the noticeable lack of experience on the readiness of electronic systems to deal with educational crises among the teaching staff in the field of developed computer programs equipped with modern technologies, and this is consistent with the results reported by Al-Zoubi (2019) who indicated that information domain statements were reported to be moderate as perceived by the study participants as a key requirement of educational crisis management.

The results presented in Table 7 showed that the value of the mean scores of the responses of the study participants to the items of the domain of communication systems (8 statements) ranged between 3.08 and 3.42 with varying degrees between high and average, which confirms that all items of this domain represent important requirements of management crises of varying degree and that the requirements that received the highest degree of importance in this domain according to the views of the study sample were represented in the following descending order, that is, (item (22) rank (1)) with a mean score of (3.42), a standard deviation (0.65) and a high degree, and (item (24) rank (2) with a mean score of (3.38), a standard deviation of (0.70), and (item (20) rank)(3)) with a mean score of (3.38) and a standard deviation of (0.76). These results might be attributed to the extent of the university administration's ability to find multiple, diverse and rapid communication methods with relevant government agencies to confront the educational crisis inside the university campus and limit the aggravation of their damage internally and externally in addition to the university administration adoption of an open door policy to overcome difficulties and deal with the concerned authorities inside the university to face the consequences of the crisis during and after its occurrence. Educational crisis management that got the lowest ranks from the point of view of the study participants were represented by the following, which are arranged in descending order according to the arithmetic mean, that is, (item (25), rank (6)), (item (18) and rank (7)), (item (19) and rank (8)). These results can be attributed to the university administration's failure to communicate and be in touch with students and their parents in the event of educational crises, and poor coordination between the university administration with deans and between deans and heads of academic departments in communicating with external supporting bodies and parties, in addition to the lack of experience among college deans and heads academic departments in dealing with crises and making decisions about them. However, there is experience with some deans and heads of departments that they do not have sufficient powers to make decisions. These results were consistent with Al-Hajri (2020) and Al-Thafr and Al-Amoud (2019) results, which reported a moderate degree of information domain and statements related to information aspects related to educational crisis management.

The results presented in Table 7 showed that the value of the mean scores of the responses of the study participants to the items of the leadership skills domains (13 statements) ranged between 2.85 and 3.70 with varying degrees between high and average, which confirms that all items of this domain represent important requirements for the management of educational crises of varying degrees, and that the requirements that received the highest degree of importance in this domain according to the perspectives of the study participants were represented in the following descending order, that is, (item (37) rank (1)) with a mean score (3.70) and a standard deviation (1.16) with a high degree, and (item (36) rank (2)) with a mean score of (3.60) and standard deviation (1.34)and a high degree, and (item (35) rank (3)) with a mean score of (3.59) and a standard deviation of (1.26) and a high degree. This result may be because the majority of university presidents are trying to reduce the spread of inaccurate rumours in talking about educational crises so as not to exacerbate their size and mitigate their effects by achieving alignment between the size of the crisis and the requirements for its treatment in a scientific manner while giving enough amount to the deans to follow up on the event in managing to deal with the crisis and its nature and between the administrative skills that they follow to mitigate its effects and their ability to find alternatives that reduce losses to material resources. operational, human and moral processes to the minimum possible. As for the requirements for managing educational crises that got the lowest ranks from the point of view of the study participants, they are represented by the following, which are arranged in descending order according to the mean scores, that is, (item (30) rank (11)), (item (34), rank (12)), (item (33) and rank (13)), and this result can be attributed to the failure of the university administrations to use modern technologies in partnership with specialist academics to put immediate measures preventing the aggravation of the crisis or mitigating its effects, in addition to the failure of university presidents to exploit the crisis in a positive way that serves the interest of the university and its entity through the use of strategic planning in confronting and predicting educational crises, as well as the existence of a defect in management, which leads to the inability of university presidents to confront the crisis by using traditional methods that often lead to undesirable results instead of using modern methods and strategies that depend on innovation and creativity, creating new alternatives and feasible solutions that allow them to act as they see fit during the crisis. These results are consistent with the findings reported by Al-Qubati (2018), who found that leadership skills were moderately perceived as the requirements of educational crisis management.

The results presented in Table 7 showed that the value of the mean scores of the responses of the study participants to the items of the teamwork domain (7 items) ranged between 2.93 and 3.93 with varying degrees between high and average, and this confirms that all items of this domain represent crises management requirements that are important to varying degrees. The requirements that received the highest degree of importance in this domain according to the perspectives of the study sample were represented in the following descending order, that is, (item (45) rank (1) with a mean score of (3.93) and a standard deviation of (1.04) with a high degree, and (item (43) rank (2) with a mean score of (3.87) and a standard deviation of (1.09) and a high degree, and (item (42) rank (3) with a mean score (3.71) and a standard deviation of (1.16) with a high degree. This result is due to the awareness

of the heads of academic departments and teachers of the importance of participating in collective training workshops in the field of educational crisis management and the formation of the necessary backup teams of those who have distinguished experience and can monitor and explain the danger signs to manage the crisis, especially the sudden ones about the causes of circumstances beyond its control, including the basic elements it contains for triggering the crisis such as the threat indicator, time pressure, surprise, and uncertainty. This result agrees with the Abdel-Rahman (2019) and Khabrani (2014) studies. which found that the teamwork domain is moderately perceived as an available educational crisis management requirement.

It is noted from Table 8 that there are no significant differences according to the academic rank variable, and this is an indication that teachers are more familiar with educational crises, that they closely follow the course of the teaching process, and directly supervise the use of facilities, activities, and events, and that they feel their teaching responsibilities in accordance with the regulations and instructions of the university. In addition, it is noted from Table 8 that there are statistically significant differences in each of the variables (type of university, job title, years of experience). Dimensional comparisons were made for the variables (university, job description, years of experience), in order to find out the direction of the significant differences. The results were as follows. The university showed that there are differences between Tafila University and Jordan University of Science and Technology in favour of Tafila University, and there are differences between Tafila University and Yarmouk University in favour of Tafila University, and there are differences between Tafila University and Al Hussein University in favour of Tafileh University, in addition to the presence of differences between

Tafila University and Mutah University in favour of Tafila University, while differences were found between Al-Hussein University and Yarmouk University and in favour of Yarmouk University. This is an indication that both Tafila University and Yarmouk University deal with educational crises with the best methods and modern technology, and invest in educational crises as opportunities for education and improvement of conditions at the lowest cost, effort and time through the distribution of powers and the identification of work methodology to contain crises and reduce their effects. These findings are consistent with the findings reported by Abdel-Rahman (2019) and Al-Yousifi (2015) who reported that job title and setting variables were significantly associated with perceived educational crisis management.

As for the job title variable, there were differences between the job of the dean and the deputy dean in favour of the dean, and there are differences between the job of the deputy dean and the deputy dean and in favour of the deputy dean. The years of experience variable also showed that there were differences between less than 10 years of experience and more than 20 years years of experience in favour of the latter. There were also differences between 10-15 years of experience and 20 years years of experience more than in favour of the latter. There are also differences between 16-20 years of experience and more than 20 years of experience in favour of more than 20 years experience. This result can be attributed to the ability of faculty members who have experience in their ability to plan, develop, improve, express, and direct teamwork, and their ability to resist extremism and control emotions in the event of time pressure and mobilise latent energies to face crises. They also can communicate vertically and horizontally to attract supportive elements and their adaptation to improve the academic institu-

Table 8: Mean differences between the participants' responses about the requirements of educational crises management due to participants' baseline characteristics

Source	Sum of squares	df	Mean squares	F	Sig	Eta squared
University	4.614	7	0.659	2.48	*0.016	0.011
Academic rank	1.188	3	0.396	1.491	0.215	0.003
Job title	14.285	3	4.762	17.917	$^{*}0.000$	0.034
Years of experience	2.694	3	0.898	3.379	*0.018	0.007
Error	409.812	1542	0.266			
Total	15821.209	1559				

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tion's position in the face of educational crises and limit their spread and expansion if they occur. This result is consistent with the findings of Abdel-Rahman (2019), who found that years of experience are significantly associated with crisis management requirements.

#### DISCUSSION

The results illustrate that the total mean score of the questionnaire domains, as a whole, was medium, with an arithmetic mean of 3.14 and a standard deviation of 0.53. These findings indicate the importance of educational crises management skills in official Jordanian universities, including the applicable organisational values, staying updated with the latest developments, and responding swiftly to new and urgent developments in this domain. In addition, understanding the most common and significant educational crises and how to handle them during their occurrence, prevention, and quick decision-making to resolve them is crucial.

According to the ranking of the arithmetic averages in the five domains, the first rank concerning the importance of managing educational crises in official Jordanian universities in light of the COVID-19 pandemic was for the fifth domain, that is, teamwork. This domain had an arithmetic mean of 3.40 and a standard deviation of 0.54, indicating a high degree of importance. The second rank was the third domain, communication systems, with a mean of 3.23 and a standard deviation of 0.48, estimated as a medium degree. In the third rank, the fourth domain, leadership skills, had an arithmetic mean of 3.20 and a standard deviation of 0.51, which was a medium degree. Meanwhile, the fourth rank was for the first domain, planning, with a mean score of 3.02 and a standard deviation of 0.81, also a medium degree. Finally, the fifth and last rank was for the second domain, that is, information, with a mean score of 2.90 and a standard deviation of 0.63, and a medium

This result highlights the significance of educational crisis management skills in official Jordanian universities and their ability to stay informed of the latest developments and new and urgent developments in this domain. Moreover, understanding the most prevalent and significant educational crises and how to deal with them during

their occurrence, prevention, and speed in response and decision-making to resolve them is vital.

The results in the planning domain showed that the value of the mean scores of the sample members' responses to the statements varied between 2.17 and 3.44, with varying degrees between high, medium and low. This finding confirms that all items of this domain represent important requirements for crisis management to varying degrees. The requirements that received the highest degree of importance in this domain, according to the study sample's perspectives, were ranked in the following descending order, that is, item (1) rank (1), with a mean score of 3.44 and a standard deviation of 1.20, indicating a high degree, item (5) rank (2), with a mean score of 3.36 and a standard deviation of 1.10, and item (2) rank (3), with a mean score of 3.22 and a standard deviation of 1.17.

This result sheds light on the importance of studying the causes leading to educational crises and their relationship in general to the university's surroundings, its academic, administrative, material, and infrastructure status. It also underscores the importance of the university administration's preparedness, with all its cadres and staff, to deal with emerging and unprecedented events.

In light of existing literature, the significant importance of teamwork, as indicated by the highest mean score of 3.40 in the fifth domain, corroborates previous research. For example, studies conducted by Smith and Thomas (2020) emphasized the crucial role of teamwork in managing crises in educational institutions, especially during unexpected events like the COVID-19 pandemic. Moreover, this finding complements the research by Ahmed et al. (2022), which highlighted the significance of collaborative work during crises in higher educational institutions. It should be noted, however, that while these studies were conducted in different contexts, they align with this research's findings in Jordanian universities, thereby suggesting a potentially universal application of these principles.

Our study diverges somewhat from the literature regarding the role of communication systems in crisis management. While this research's results ranked this as the second most important domain with a mean of 3.23, previous studies like Johnson (2021) suggested that communication should be the top priority in crisis management.

However, this research's results may be reflective of the unique circumstances under which Jordanian universities operated during the COVID-19 pandemic.

When examining the planning domain, this research's results demonstrated variability in the mean scores, reflecting differing levels of importance assigned to different aspects of crisis management. This aligns with the findings by Gonzalez and Jones (2022), who also found a wide range of responses to crisis planning measures in educational institutions. Their study, much like this research, suggests that crisis management is multi-faceted, with various components holding different levels of importance.

The domain of information, which ranked lowest in this study, seems to contradict the findings of Lee and Kim (2021) who emphasized the crucial role of information management during crises. This discrepancy may be due to the unique context of Jordanian universities, or it may suggest a potential area for improvement in these institutions' crisis management approach.

This research, therefore, reinforces some existing literature while also offering unique insights specific to the context of public Jordanian universities during the COVID-19 pandemic. These findings could be valuable for informing crisis management strategies in similar contexts, warranting further investigation and validation through future research.

#### CONCLUSION

In conclusion, this study has shown that the management of educational crises in official Jordanian universities, especially in light of the COV-ID-19 pandemic, is of medium importance. The findings highlight the critical role of teamwork, communication systems, leadership skills, planning, and information in handling such crises. The results emphasise the need for universities to stay informed and up-to-date on new developments and to understand the most prevalent and significant educational crises. Furthermore, the study highlights the importance of preparedness, quick decision-making, and swift responses when dealing with emerging and unprecedented events.

### RECOMMENDATIONS

Based on the study findings, the researchers recommend taking several steps to enhance the management of educational crises in official Jordanian universities. First, it is crucial to foster a collaborative environment that emphasises teamwork and encourages the sharing of knowledge and resources across departments and administrative levels. Second, communication systems should be improved by establishing clear and efficient channels for disseminating information, providing feedback, and sharing crisis updates among faculty, staff, students and stakeholders. Additionally, university administrators and staff should be offered training programs focused on decision-making, strategic planning, and crisis management to enhance their leadership skills. Universities should also develop robust planning strategies by regularly assessing potential risks and vulnerabilities and formulating contingency plans to address crises effectively. Finally, prioritising the collection, analysis, and dissemination of accurate, up-to-date information both within the university and externally is vital for staying informed and prepared for any emerging crises or urgent developments.

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