

Research on Optimisation of Crisis Management System in Universities

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Abstract

In a social context characterised by uncertainty and complexity, colleges and universities are frequently attacked by public health and various crises triggered by individual teachers and student groups, and normal teaching and learning activities are paralysed due to the lack of experience in crisis management. In addition, the crisis in colleges and universities itself has the characteristics of suddenness, hazard, publicity and urgency, which requires crisis managers to make critical decisions and respond urgently in a very short period of time. However, there is still much room for improvement in the agility, systematicness and stability of the existing crisis management system in colleges and universities, and therefore the optimisation of the crisis management system in colleges and universities is imminent. Based on this, this paper explores the core problems and essential reasons of crisis management in universities through case analysis, clarifies the influencing factors and the relationship between the factors, constructs the optimization system of crisis management in universities based on the CMSS crisis management framework which includes information, consulting, decision-making, and implementation of the four systems, and determines the organizational structure of the crisis management, the implementation process, and refines the specific activities of each organization by using the establishment of corresponding reward and punishment systems. The establishment of a corresponding reward and punishment system. From the three dimensions of structure, process and system, each of the four systems will be prompted to perform its own duties, be in its own place, make its best use of its responsibilities and be successful in its own way, so as to accurately respond to various types of crises that may break out in universities and greatly enhance the agility, systematicity and stability of the handling system, and to provide a powerful guarantee for the realisation of turning a crisis into an opportunity.

Keywords

Crisis in Universities; Crisis management; Crisis Management System Optimisation.

1. Introduction

Colleges and universities are in a situation of volatility, uncertainty, complexity, ambiguity, several characteristics of the joint role of the situation, the development of all aspects of the challenges faced by the richness of the level, the characteristics of the diversity of the relationship between the complexity and the state of the unknown and so on, the slightest error will be plunged into the quagmire of the crisis, reduced to the public attention of the community as the focus of social public opinion, become the object of the public opinion [1]. The state and colleges and universities use a variety of resources to carry out crisis management in colleges and universities, but still in major emergencies in the public acceptance of interjection, low

understanding of the internal groups of colleges and universities, especially in the crisis management is the emergence of responsibility and rights are not clear, the crisis is put on hold, the implementation of the inefficiency of the decision-making system malfunctioning and the spread of the crisis and other issues. The construction and optimisation of university crisis management system, as an important part of university crisis management, has received sustained attention from all walks of life in recent years, and the establishment and improvement of university crisis management system has become one of the most important contents of innovation and enhancement of university crisis management. This paper focuses on the research of college crisis management system under the changeable and complex background, reviewing the typical cases of college crisis management, discovering the systematic mechanism problems exposed in the process of crisis management, condensing the influencing factors and logical relations of crisis management, optimising the college crisis management system, and providing the executable and operable crisis management system for colleges and universities, covering the information system, consulting system, decision-making system, execution system and other four systems linkage. Crisis management system. Formulate the structure, process and system of crisis management, so that it can become a crisis management system of universities with the linkage of the four systems.

2. Theoretical Foundation

2.1. Definition and characteristics of the crisis in higher education

At present, there are various definitions of college crisis among scholars and theoretical circles, and the more widely accepted one is: any event that occurs on college campuses or related to college members without prior warning suddenly breaks out, which may seriously threaten the normal order of education in colleges and universities and may bring other undesirable consequences, including disturbing and hurting college members, damaging the teaching facilities of colleges and universities and bringing damage to the image and reputation, etc., which is difficult to be solved immediately with the existing manpower and resources of colleges and universities is called a college crisis [2]. Damage to the existing manpower and resources of universities and colleges are difficult to solve immediately and effectively are called university crisis [3,7]. The characteristics of university crisis are (1) suddenness; (2) group; (3) harm; (4) urgency; (5) double-sidedness.

2.2. CMSS Crisis Management Framework Structure

The Crisis Management Shell Structure (CMSS) has been specifically designed to meet the strategic and policy needs of a crisis situation, while maintaining a clear structure that is linked to the operational command and response process [4]. The CMSS organisations have a clear division of labour, with short communication and command pathways, and are able to accurately collect, assess and master crisis information. information about the crisis, emphasising cooperation rather than just tactical command, while the flat structure supports effective communication and management across groups and between organisations and external organisations. This paper retains its basic framework, and designs it according to the organisations of universities to construct a crisis management system for universities.

3. An Analytical Study of Problems and Causes in Crisis Management in Colleges and Universities

When the break is not constant, the opposite is true. Crisis management in colleges and universities is an important part of crisis management in colleges and universities when a crisis occurs, to effectively deal with the crisis, so that it is turned into a safe, or even turn the crisis into an opportunity to realize the solution to the crisis or even a breakthrough in the process of

the dilemma [5]. Nowadays, there are still systematic problems in the process of crisis management, and its problems and reasons are analyzed by examples.

3.1. Overlapping or mutilated institutions result

Due to the long-term stability of the university environment, the crisis management experience is seriously insufficient, during the epidemic in the absence of a professional consulting team to guide the situation in the crisis of the organisational staff allocation confusion, the lack of solutions or have a programme but the programme is not on the ground and can not be carried out and other problems, some parts of the organisational staff overlap the tasks of certain aspects but no one is responsible for it, resulting in the problem of the front of the responsibility to pass on the responsibility which led to the exacerbation of the crisis. The reason for the above problems is the lack of application of suitable organisational structure. At present, universities and colleges are using linear functional organisational structure, which is a typical "centralised" structure, and the horizontal connection between various functional departments is poor, which is easy to produce disconnections and contradictions, and the information transmission route is longer, which is difficult to cope with highly uncertain and extremely complex crises. However, crisis management requires rapid feedback, timely adaptation to changes in the environment and a high degree of unity of purpose, making the adoption of a suitable organisational structure an important task[6].

3.2. Confused processes lead to crisis on hold

During the new crown pneumonia epidemic exposed the crisis management process multi-node cross confusion, single node handover disjointed, for the handover of the time, place, people, content and objectives of the ambiguous, and even the refusal of the handover of the person to receive and deal with, resulting in the task can not be completed in a timely manner, the implementation of the process of obstruction and the crisis issue was put on hold, and ultimately fell into the crisis of the unlimited spread of the situation. Prompted by the crisis from controllable to uncontrollable to completely out of control, until the phenomenon of falling into the abyss of the fundamental causes of the phenomenon directly to the lack of scientific, effective, systematic, and practice-tested crisis management process in colleges and universities, so the design of scientific, effective, and systematic process has become the key to solving this problem.

3.3. Ineffective system of rewards and sanctions

Many colleges and universities in the epidemic during the shirking of responsibilities, do things inefficiently[8], some people want to use the easiest work for maximum results, and even produce "free-riding" behaviour, so that the organisation of all people just want to sit back and reap the rewards, the effect of crisis management in colleges and universities is becoming increasingly weak, the cost of crisis management is rising. No system is not round [8]. At present, colleges and universities only daily reward and punishment system, no specific for the crisis management process of reward and punishment system, which leads to the above problems, so improve the corresponding reward and punishment system, become the best way to improve this phenomenon. Ultimately, to enhance the enthusiasm of the personnel and the efficiency and effectiveness of crisis management, to avoid the occurrence of multiple crises.

3.4. Information asymmetry leads to poor decision-making

In the case of the Xin Guan Pneumonia epidemic, for example, there were frequent obstacles to the input and output of information in the process of crisis management, and decision makers were unable to obtain first-hand information, which led to biased judgement of the crisis, repeated decision-making errors, and even paralysis of decision-making. The reasons for this are complex, and are attributed to the inapplicability of the organisational structure, unsound

processes, and imperfect reward and punishment systems. Linear functional organisational structure of centralised power, lower level personnel are afraid of liability or collateral, the information will be selectively transmitted to the decision-making level, and in the cumbersome process of information distortion, the decision-making level can not fully access to the real information. It is therefore imperative to select an organisational structure based on merit, design a systematic process and improve the relevant reward and punishment system.

3.5. Inadequate communication strategies

In the case of university crises caused by psychological problems, for example, in the process of dealing with such crises, administrators are often eager to clear up the relationship between the incident and the university in order to maintain the university's reputation, ignoring the emotional changes and actual needs of the victims and their families, and missing the opportunity to give positive explanations to the public, which has led to the spread of the crisis. The reason for this is that the communication strategy is not sound, the internal communication fails to inform the truth, stabilise the situation and satisfy the needs, and the external communication fails to explain the reasons, impacts and ways to deal with the situation, which results in the normal operation of the teaching activities within the university and the public is full of objections, so a sound communication strategy is a key step to stabilise the hearts and minds of the internal university, the victims and their families, as well as the public.

4. Construction of Crisis Management System in Colleges

Based on CMSS crisis management, we propose a framework for a university crisis management system that includes four component systems: an information system that includes the College Information Centre (CIC), the Public and Media Department (PMD), and the Information Detection Department (IDD); a counselling system that includes the Professional Advice Department (PAD) and the Teacher Advice Department (TAD); a decision-making system that includes the College Crisis Manager (CMIU) and the College Management Liaison Department (CMLD); an executive system that includes the Resource Management Department (RMD) and the Joint Implementation Department (JID). Management Liaison Department (CMLD); and the Implementation System, which includes the Resource Management Department (RMD) and the Joint Implementation Department (JID). The CMIU and CMLD are the central components that allow for the expansion of the four systems' activities, as shown in Fig.1.

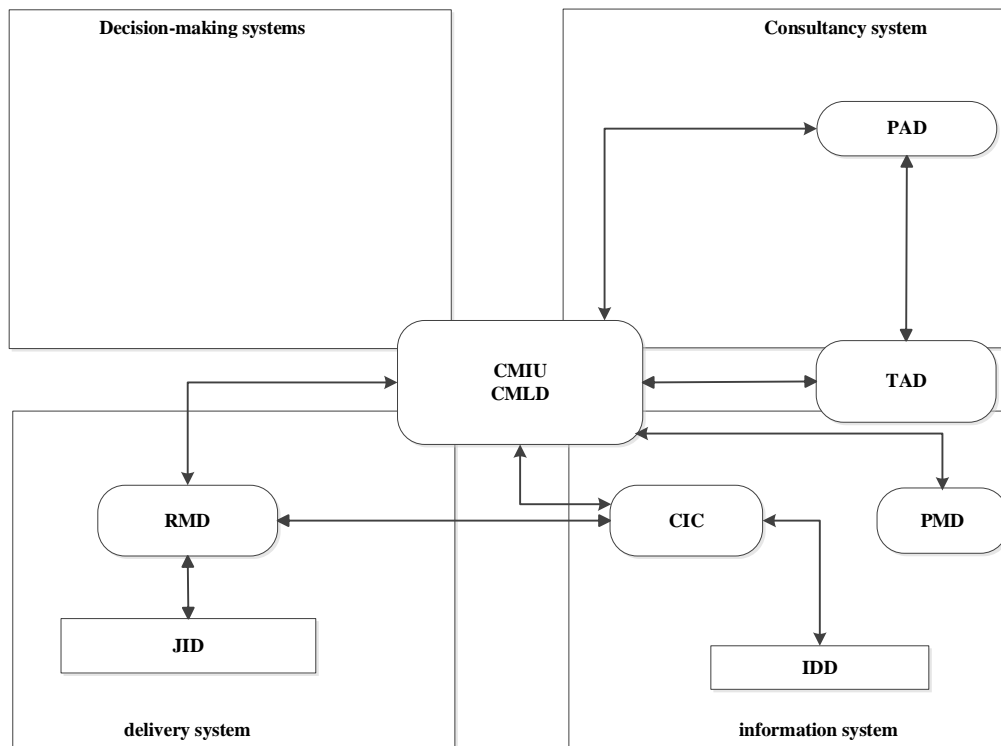


Fig.1 Crisis Management System Framework Structure for Higher Education Institutions

5. Crisis Management Strategies for Colleges and Universities

5.1. Establishment of functional organisational structures

At present, colleges and universities generally use linear functional organisational structure, information can not reach all departments as well as links without discrimination[10], so try to use mobile, flexible, can be organised with the occurrence and end of the crisis or dissolution of the moment of the matrix functional structure, because this structure organisational tasks are clear, the purpose is clear, the various aspects of the expertise of the people who are prepared to strengthen the cooperation between different departments and exchange of information, to overcome the The phenomenon of disconnecting departments from each other in the linear functional structure in order to achieve rational deployment of resources.

Based on the matrix organisational framework, a matrix functional structure was constructed with eight functional departments, namely Information Reconnaissance Department, University Information Department, Public and Media Department, University Crisis Management Liaison Department, Professional Counselling Department, Teachers' Counselling Department, Resource Management Department, and Joint Execution Department, as well as four types of common university crisis projects. Each department in the crisis management system is formed as a temporary organisation by drawing staff from everyday departments in the university, with smooth communication between the groups to facilitate rapid crisis resolution.

5.2. Crisis Management Process in Higher Education

At the beginning of the crisis, the Information Investigation Department investigates the first-hand information at the crisis site and sends it to the Information Centre of the university to be classified, sorted, evaluated and analysed. The information is then sent to the University Crisis Manager, who, with the assistance of the Professional Counselling Department and the Faculty Counselling Department, formulates overall strategic decisions, which are then made by the Faculty Crisis Managers according to the actual situation in each faculty. Regardless of whether

or not the incident is open to the public, the Resource Management Department will quickly allocate school resources according to the manager's decision, and the Joint Implementation Department's joint student-teacher team and joint off-campus team will translate the Resource Management Department's plan into a plan of action. Internally, when the incident is open to the public, the Faculty Counselling Department is required to stabilise the crisis parties, collect and transmit stakeholder information to the university crisis manager for decision-making. Externally, the university crisis manager needs to make public relations decisions, and the public and media department needs to communicate with the public in a timely manner in order to control the external perception of the university, as shown in Fig. 2.

1.

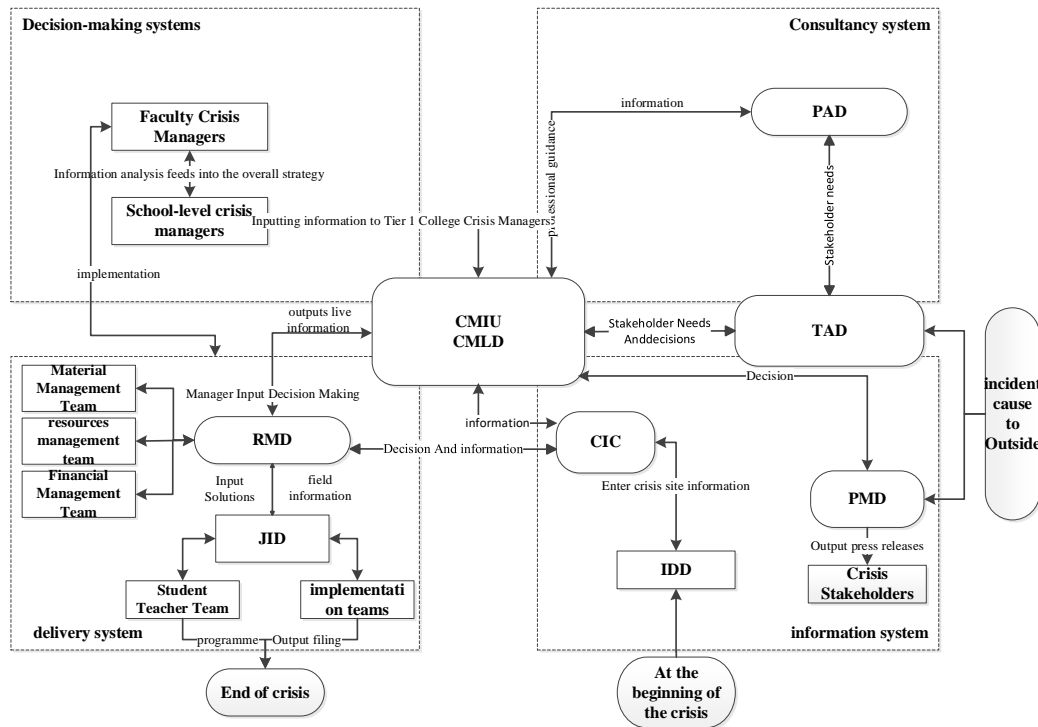


Fig.2 Crisis Management Flowchart

5.3. Communication strategy

A complete communication strategy is a prerequisite and process guarantee for scientific and effective response to college crisis, and is an important part of the emergency response mechanism of colleges and universities. The main purpose of the communication strategy in crisis management is to maintain the normal operation of teaching activities within the university, appease the emotions of stakeholders, maintain good relations with the victims and their families, and guide the positive wind evaluation, the specific strategies are shown in Table 1. below.

The internal communication strategy adopts the principle of "honesty, sincerity, and sincerity". When stakeholders are in crisis, they will inevitably have negative emotions such as anxiety, worry and anxiety, so we should honestly inform them of the truth, sincerely stabilise their emotions, and sincerely put forward concrete action plans to achieve normal operation of teaching and learning activities, and maintain internal balance and stability.

The communication strategy for external victims and their families is based on the 3F principle of "Listen to Fact, Feel and Focus". Victims and their families are the main recipients of the incident, and obviously have emotional fluctuations and unstable states, so the university needs to explain the truth and listen to their true feelings and intentions.

The communication strategy for the public adopts the 3T principle: "Tell your own tale, tell it fast, tell it all". Although the public is not within the scope of the crisis, they are still concerned about the information, and it is easy for the public to guide the public opinion, so the university needs to take the initiative and quickly provide all the real situation of the crisis, to guide the public opinion and turn the crisis into an opportunity.

Table 1. Communication Strategies for Crisis Management

factor typology	targets	focus	contexts	object	mode	tactics
inward communication	interest stakeholders	Realities, scope of impact, concrete action plans	At the beginning of the crisis	Stabilisation of emotional conditions at the site, maintenance of normal teaching and learning activities	Face to Face complementary	the Three Honest Principles (Taoism)
Communication to external victims' families	Victims or their families	Real situation, physical and mental feelings, true intentions	At the beginning of the crisis	Calming and stabilising	face to face	The "3F" principle
External community Public communication	the mass	The real situation, the original cause of the incident, the extent of its impact, the way in which it was handled, etc.	When the crisis opens up	Correctly guiding the direction of public opinion and turning crises into opportunities	Press conferences and other media	The "3T" principle

5.4. Design of the system of incentives and disincentives

In dealing with crisis, not only need to pay attention to the crisis itself, but also need to pay attention to the state of organisational personnel [11]. Improvement of the corresponding reward and punishment system can not only enhance the enthusiasm of the personnel and the efficiency and effectiveness of crisis management, but also avoid the repetition of errors and the occurrence of multiple crises.

5.4.1. Reward system

The reward system is set up to promote the implementation of the tasks of the various systems of crisis management in universities, to raise the awareness of crisis management among all staff, to clarify the responsibilities of each department, to ensure the effective operation of the crisis management system in universities, to further enhance the effect of crisis management, and to effectively reduce the hazards and losses brought about by the crisis.

Setting up five levels of incentives such as leave, economic and material subsidies, teaching and training opportunities, awarding of honours such as "excellent teacher", and priority selection of teachers' titles. Five levels of evaluation criteria are set up for the length of work, progress of tasks, level of responsibility, evaluation grade, and special contribution to crisis management; As indicated in Table 2.

Table 2. Comment form on the award programme and evaluation criteria

Incentive Programmes	Assessment Criteria
leave	Daily working hours \geq 12h, task progress \geq 85 per cent
Economic and material subsidies	Daily working hours \geq 12h, task progress \geq 85 per cent, level of responsibility \geq 90 per cent
Teaching training opportunities	Daily working hours \geq 12h, task progress \geq 85%, degree of responsibility \geq 90%, evaluation rating \geq 4 stars
"Outstanding Teacher" and other honours awarded	\geq 12h of daily working hours, \geq 85% of task progress, \geq 90% of responsibility.
Priority selection opportunities for teachers' titles	Evaluation rating \geq 4 stars, providing exceptional contributions to crisis management. e.g. suggesting effective strategies that can be implemented, volunteering for difficult tasks.

5.4.2. Penalty system

In order to help college personnel to comprehensively and effectively comply with the rules and regulations of college crisis management [12], better regulate the behaviour of personnel in various organisations and departments, strengthen the management of personnel, and ensure the normal order of college crisis management, colleges and universities must be clear procedures for recourse to blame, and appropriate penalties should be clearly defined as the object of recourse to blame, the definition of accidents and classification, and the recourse to blame for accidents of different levels of treatment measures.

(1) The criteria for determining who is to be held responsible should be based on the principle of "who is in charge, who is responsible; who performs, who is responsible" for the design of the hierarchical system of responsibility. The target of recourse is divided into three categories: the person directly in charge, the parallel person in charge, and the person in charge. If the responsible person in the process of crisis management causes an accident in crisis management due to failure to perform his duties or poor execution, he will be held responsible according to the standard.

(2) the definition and grading of accidents according to the actual situation of universities, and by the degree of impact of accidents on crisis management from low to high I-V five levels. I- V level to set up different ways of recourse, the specific ways of recourse by the college, directly under the Crisis Management Committee to study the decision to recourse to deal with the following table 3.

(3) the design of the accident handling needs to follow the principle of human-centred, specific things to be analysed. Firstly, it is necessary to consider the uncertainties in the process of crisis management, and to take a lighter punishment as appropriate; secondly, it is encouraged to deal with accidents in a timely and proper manner after the occurrence of accidents, to reduce the risk of expanding the scope of the crisis, and to consider taking a lighter punishment; and lastly, it is necessary to impose severe punishment on the behaviours of delayed reporting, concealment of reports and evasion of responsibility.

Table 3. Table of views on the way in which recourse is handled in crisis management

accident level	Observations on the modalities of recourse				
	Written examination/criticism of the whole school	Warning/Suspension of Performance Pay	Demerit/suspension from teaching	Downgrading/removal /dismissal of teachers	Referral to judicial authorities
I	√				
II	√	√			
III	√	√	√		
IV	√	√	√	√	
V	√	√	√	√	√

6. Summary

The highest goal of crisis management in colleges and universities is to protect the health and life safety of staff and students, safeguard the interests of staff and students, and ensure the normal conduct of educational and teaching activities in the school when a crisis occurs. Therefore, under the premise of adhering to the student-oriented, people-oriented, colleges and universities should organise, process and institutionalise the crisis management, and establish an executable and operable crisis management system in colleges and universities. There is no absolute model for crisis management in colleges and universities to follow, this paper is based on the relevant theories and problems and reasons for crisis management in colleges and universities in China, to build a smooth and symmetrical information, professional consulting and guidance, accurate and fast decision-making, and the implementation of a strong and effective system of crisis management in colleges and universities, the selection of the functional organisational structure of the optimal design of systematic processes, improve internal and external communication strategies, and improve the organisational rewards and penalties system. This paper is not deep enough in the research and practice of college crisis management, the optimisation of the college crisis management system also needs more researchers with practical experience to participate in the research, so that the research results can be better matched with the actual work, and more effectively guide the practice of China's colleges and universities in crisis management to provide an agile, systematic and stable processing system, effectively reduce the probability of college crises, and protect the steady and rapid development of colleges and universities.

References

- [1] Liu Zhuo. The design and application of crisis early warning and disposal system in colleges and universities[J]. Journal of China University of Geosciences (Social Science Edition), 2012, 12(06): 109-114. DOI: 10.16493/j.cnki.42-1627/c.2012.06.019.
- [2] Dong, H. L. Four elements for leaders to cope with VUCA environment[J]. Enterprise management,2014(12):113-114.
- [3] WANG Yinjie, WU Hongfeng, YANG Yunying et al. Construction of Crisis Management System in Colleges and Universities under the Perspective of Harmonious Society[J]. Journal of Hebei Normal University (Education Science Edition), 2011, 13(08): 95-97. DOI: 10.13763/j.cnki.jhebnue.2011.08.026.
- [4] Liu G. Crisis management [M]. Beijing: Renmin University of China Press,2013.131~132.

- [5] Geng Yina. The construction and improvement of campus crisis management system--Taking the incident of typhoon attack on pf campus of a university in zhejiang as an example[J]. Contemporary Youth Research, 2008, No.264(03): 18-22.
- [6] Li Weidong. Public Opinion Guidance in Colleges and Universities in the Context of Student Crisis Events[J]. Research on Ideological Education,2011, No. 196(07): 49-52.
- [7] YANG Lan, ZHENG Wei. Content, concept and principle of crisis management mode innovation in universities under the background of big data[J]. Journal of Xiangtan University (Philosophy and Social Science Edition),2021, 45(02):51-59. DOI:10.13715/j.cnki.jxupss.2021.02.009.
- [8] YIN Runlin, XU Mei, TANG Xuesong. Exploration of crisis management in colleges and universities[J]. Education and Career,2015, No.838(18):44-46.DOI:10.13615/j.cnki.1004-3985.2015.18.014.
- [9] Meng Liang, Zhang Guanglei. Construction of security prevention and control system in colleges and universities based on 4R crisis management theory[J]. Modern University Education,2017, No.166(04): 91-96+113.
- [10] Bo Wang, Xiang Wang. Research on CSFs for emergency management of epidemic in Malaysian universities - an analysis based on DEMATEL-AISM[J]. Heilongjiang Higher Education Research, 2022, 40(08): 66-73. DOI:10.19903/j.cnki.cn23-1074/g.2022.08.025.
- [11] Xin Jiaozhen, Zhou Ming. The way to build the early warning mechanism of crisis management in colleges and universities[J]. School party building and ideological education, 2015, No.506(11):75-76.
- [12] Sun Li. Research on crisis event handling and early warning mechanism for college students under network background[J]. Education Teaching Forum,2019(04):254-255.