RISK PREVENTION AND CONTROL OF PUBLIC OPINION IN COLLEGE EDUCATION IN THE CONTEXT OF CHINA'S MODERNIZATION OF NATIONAL GOVERNANCE: TAKING COVID-19 AS AN EXAMPLE

Junli Tu[1], Xin Hu[2], Hong Jiang[3,*]

[1]Ideological and Political Education Department, Zhengzhou Health Vocational College，Zhengzhou,450100, China
[2]Information Technology Department of ZhongYuan Bank Co., Ltd., Zhengzhou,450018, China
[3]Propaganda Department, Zhengzhou Tourism Vocational College, Zhengzhou, 451464, China

ABSTRACT

At present, China's promotion of the modernization of its national governance system and governance capacity has become a major national strategic task. Affected by the COVID-19 pandemic, the public opinion risk crisis in colleges is gradually increasing, which seriously threatens the normal study and life of college students as well as the harmony and stability of colleges. Accordingly, the risk prevention and control of public opinion in college education has become particularly important. Based on the above background, this study combines the current severe situation of the COVID-19 pandemic to analyze China's national governance modernization strategy, and is focused on the risk prevention and control methods of public opinion in Chinese colleges. By analyzing the current situation of educational public opinion and sorting out the relevant research literature in the world, the crisis and causes of educational public opinion are revealed. An evaluation method for the importance of educational public opinion indicators is proposed, which combines subjective and objective empowerment methods. By constructing the public opinion indicator system of college education, this study completes the evaluation of the importance of public opinion risk indicators. The construction of the public opinion risk indicator system and the indicator importance evaluation method proposed in this study are the frontier research field in the research on the prevention and control of public opinion risk in college education. The research results can provide theoretical and practical experience for the management of public opinion in international college education under the current COVID-19 pandemic. More importantly, combined with the theories and methods of this research, targeted approaches are put forward to manage the public opinion risk crisis in college education in the context of the modernization of China's national governance capacity, which can effectively prevent the public opinion crisis in Chinese colleges, and provide a theoretical basis for the Chinese government and colleges to formulate relevant policies.

Keywords: COVID-19; Educational Public Opinion; Risk Prevention and Control; Subjective and Objective Empowerment Method; Crisis Governance Approach

Risk Prevention and Control of Public Opinion in College Education in The Context of China's Modernization of National Governance: Taking Covid-19 As an Example

1. INTRODUCTION

The Communiqué of the Third Plenary Session of the 18th Central Committee of the Communist Party of China proposes to promote the modernization of the national governance system and governance capacity. *The Communiqué of the Fourth Plenary Session of the 19th Central Committee of the Communist Party of China* emphasizes that upholding and improving the socialist system with Chinese characteristics and advancing the modernization of the country's governance system and governance capacity are a major strategic task for the entire Communist Party of China (CPC). Besides, improving the public opinion guidance working mechanism that adheres to the correct orientation is taken as an important indicator to promote the modernization of the country's governance capacity. It can be seen from the above policies that doing a good job in public opinion management is very necessary for improving the ability of public opinion risk prevention and control. In addition, the global COVID-19 pandemic is severe[1][2], colleges have many sensitive events, which is featured by rapid outbreaks and high levels of complexity, plus teachers and students are active in thinking and have a strong connection with the Internet. As a result, a crisis of public opinion in education may appear due to inappropriate words and deeds of teachers[3], or insufficient support for students' daily essential needs[4], or unsatisfactory logistical support services, and even rising prices.[5][6] Once handled improperly, it will not only affect the effectiveness of moral education in colleges, but also seriously damage the harmony and stability of colleges. Therefore, it has become an important topic to pay attention to the impact and challenges brought by the modernization of China's national governance capacity to the public opinion in colleges, sort out and summarize the existing problems, and use scientific methods to effectively improve the management ability and level of public opinion in college education.

Public opinion refers to the emotions, opinions and attitudes of the people. Educational public opinion refers to the attitudes and opinions of the public on intermediary matters in a certain social space, surrounding the occurrence, development and changes of intermediary social matters. Educational public opinion has three components of emotion, knowledge, and meaning. It is a comprehensive reflection of people's political attitudes, ideology and behavior towards educational practice, educational phenomena, and educational issues. It is also the sum total of various emotions, attitudes, expressions of opinions and behavioral tendencies generated by events, educational phenomena or educational discourses. Due to the characteristics of immediacy and suddenness, emotionality and irrationality, anonymity and concealment, interaction and feedback, diversity and richness of educational public opinion, if the educational public opinion cannot be effectively controlled, it may generate extremely serious negative effects[7]. According to statistics from (China) Hunan Yifang Software Co., Ltd., the negative public opinion in colleges in 2018 mainly focused on teachers' morality, campus safety, campus management, and inappropriate words and deeds, accounting for 33%, 17%, 17% and 17%, respectively. According to statistics from the (China) Youxun Omnimedia Public Opinion Monitoring System (UUWatch), the negative public opinions of colleges in 2019 mainly focused on campus safety, campus management, academic misconduct, teacher ethics, and inappropriate words and deeds, accounting for 17%, 17%, 13%, 13% and 13%, respectively. According to the statistics of the Public Opinion Data Center of (China) People's Daily Online, the negative public opinions of colleges in 2020 mainly focused on campus safety, campus management and academic misconduct, accounting for 18%, 18% and 15%, respectively. The public opinion data of college education is shown in Table 1.

Table 1 Proportion of major negative public opinion events involving colleges from 2018 to 2020

Year	Campus safety/%	Campus management/%	Academic misconduct/%	Disciplinary violation/%	Inappropriate words and deeds/%	Teacher morality/%	Admission test/%	Others/%
2018	17	17	8	8	17	33	0	0
2019	17	17	13	5	13	13	9	13
2020	18	18	15	10	6	5	9	19

From the table, there is no obvious change among the types of negative public opinion events in the past three years. However, in terms of trends, negative public opinion events in colleges have grown explosively in the past three years. According to the statistics of the case database of the Public Opinion Data Center of the People's Daily Online, in 2020, the national major public opinions involving colleges increased by 33% year-on-year, an increase of 133% compared with 2018. The details are shown in Fig. 1.
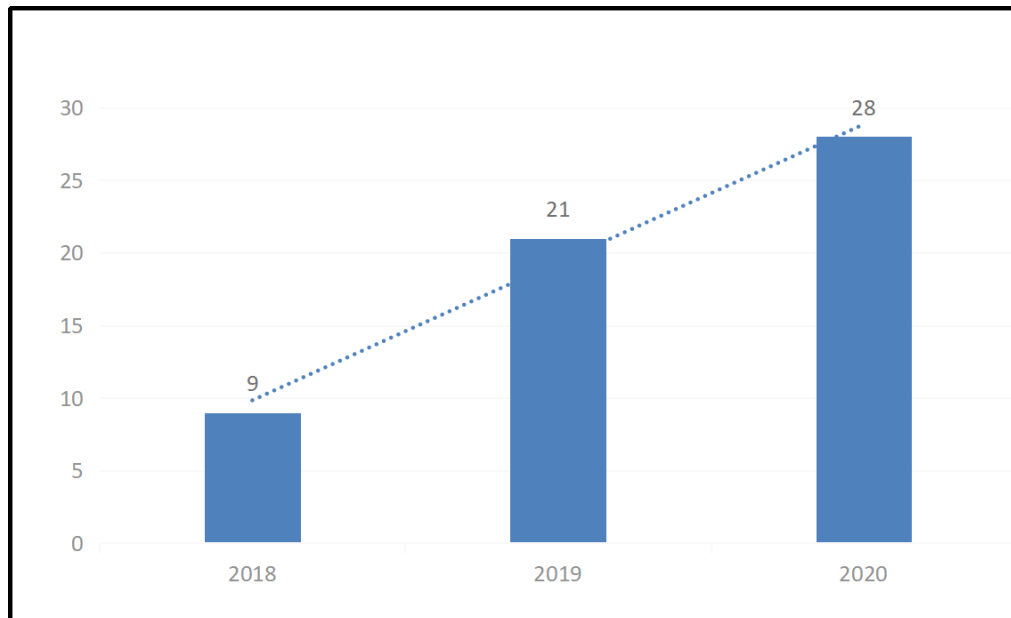

Fig. 1 National major negative public opinion events involving colleges from 2018 to 2020 (unit: piece)

According to the above background and current situation analysis, the main contributions of this paper are as follows. (1) The crisis of public opinion in college education and its causes are analyzed, and a risk indicator system for public opinion in college education is constructed. (2) An indicator weight calculation method is proposed based on analytic hierarchy process (AHP)-entropy method, which is essentially a subjective and objective weighting method, and the actual case has verified that the proposed method has a good applicability to the analysis of college students' educational public opinion. (3) According to the research results in (1) and (2), this paper puts forward the governance methods of public opinion risk crisis in college education under the background of the modernization of national governance capacity, which can provide practical support for the government to formulate relevant measures for public opinion prevention and control, especially for the formulation of public opinion management measures for college education and teaching.

The rest of this paper is arranged as follows. Section 2 is the literature review of this paper, which sorts out the relevant literature on public opinion management, educational public opinion management, and public opinion risk evaluation methods. In Section 3, the crisis of public opinion in college education and its causes are analyzed. Section 4 constructs the public opinion risk evaluation indicator system of college education. In Section 5, a risk evaluation method suitable for public opinion in college education is proposed. Section 6 conducts the analysis through case study. Section 7 gives the governance approaches for the risk and crisis of the public opinion in college education under the background of the modernization of national governance capacity. Finally, conclusions are made in Section 8.

2. LITERATURE REVIEW

The digitization and networking of information technology is an important symbol of the information society in today's era [8]. It has greatly changed the work and lifestyle of college students, and also provided a broad and high-speed platform for college students to freely and conveniently exchange information and disseminate public opinions.

However, while the Internet provides great benefits to college students, it also brings some adverse effects [9]. Through the Internet, college students share information, but many of their opinions and conclusions are characterized by subjective speculation, and even the information they share may be false or wrong information. If such information cannot be processed in a timely manner, it will bring challenges to the well-ordered operation of the economy and society, resulting in the risk of online public opinion. In response to this problem, many scholars in the world have carried out active research and achieved many results. This paper summarizes the methods of public opinion management, educational public opinion management, public opinion risk evaluation and prevention and control measures.

In terms of public opinion management, there are abundant international research literatures. Luo et al. [10] used python crawlers to obtain Weibo comment information, and used spatial analysis methods and SAAR model to analyze the spatiotemporal pattern evolution and spatial agglomeration of online sentiment features, and proposed that there is a spatial spillover effect of online sentiment. Tan et al. [11] constructed a BERT-LDA hybrid model for large-scale network public opinion analysis in complex backgrounds by collecting large-scale text data related to anti-elab campaigns.Wang [12] used machine learning methods and big data-based statistical techniques to analyze the key factors affecting network public opinion, and built a public opinion early warning system on this basis. The above three studies can provide experience and reference for us to sort out the current situation of network public opinion crisis and to manage the crisis. Ge [13] improved the early warning mechanism of network public opinion emergencies by analyzing and judging the network public opinion. Peng et al. [14] constructed a network public opinion early warning indicator system including 4 first-level indicators and 13 second-level indicators by fully considering the development and dissemination characteristics of network public opinion. He established an early warning model of network public opinion using the genetic algorithm improved back propagation (GA-BP) algorithm. The above two studies can provide experience and reference for us to construct the public opinion indicator system of college education. Xu et al. [15] used HDFS as the underlying storage system, and built a distributed database based on HBase on it, which realized the unified storage and management of public opinion information. Xu et al. [16] established a dynamic propagation model based on SIR, which extended the research cycle of network public opinion to the cycle of network public opinion, providing a reference for the quantitative analysis of network public opinion cycle. By identifying the relevant stakeholders involved in the process of public opinion dissemination, Wang et al. [17] proposed that the key to controlling public opinion is to achieve the balance of interests of various stakeholders.Zhang et al. [18] analyzed the development and evolution of online public opinion, identified the characteristics of online public opinion evaluation, and developed a dynamic decision-making framework to evaluate online public opinion in a probabilistic language environment. An et al. [19] proposed a high-influence user analysis method based on topic consistency and emotional support.Lin et al.[20] put forward the development needs of social work in terms of community resilience, social work practice, lack of public health social workers, and big data early warning, and pointed out that social work lacks due structural position in China's public health system and emergency management system. Li et al. [21] took the public opinion texts of specific events on social network platforms as the research object. They considered the relevant characteristics of different social user identities and time series, and proposed and implemented an effective time-user dual attention mechanism model to analyze and predict public opinion text information. Xie et al. [22] used an anti-nuclear mass event that triggered public sentiment as a research sample to verify the effectiveness of the method. Liu et al. [23] made some practical suggestions that social media can be used to retrieve valuable information to help identify disaster losses and develop disaster relief plans, and that government agencies need to enhance interaction with ordinary people, rather than just provide one-way communication. This research can provide experience and reference for us to formulate strategies for public opinion management in colleges. We are very grateful for the above research results, which have demonstrated the feasibility of research ideas and technical realization for us to carry out educational public opinion risk evaluation and prevention and control, especially in the construction of educational public opinion indicator system, with important theoretical support significance.

However, there are relatively few international research literatures on educational public opinion management. Li et al. [24] used Yaahp software to calculate the weight of influencing factors of public opinion in online education on the basis of analyzing the public opinion subject, public opinion object, and public opinion ontology of the characteristics of online educational public opinion. Their research can provide empirical reference for us to design the indicator weight calculation method.

Jiang [25] discussed the innovation of ideological and political education in colleges under the background of network public opinion from the aspects of education concept and educational content through a brief introduction to the connotation and characteristics of network public opinion in colleges. Besides, the ways were proposed to ensure that this kind of education make a positive role in the new eraThe above studies mainly explore the evolution mechanism and prevention and control measures of public opinion management in colleges through mathematical modeling, data mining, computer simulation and other technical means.

They provide practical support for our research on the management strategies of public opinion in colleges under the background of the COVID-19 pandemic. In addition, in terms of public opinion risk evaluation, the existing research is also relatively rich. Based on the CWAHP-Entropy method, Chai et al. [26] used combined weights to evaluate online public opinion, and proposed an improved AHP-entropy method. On the basis of analyzing the status quo, Xiong et al.[27] established an evaluation system for food cold chain logistics enterprises from four aspects, i.e. financial management, cold chain logistics process, development capability and customer service based on AHP and entropy method. Na et al. [28] established a low-carbon campus evaluation indicator system that comprehensively considered subjective and objective factors. They used AHP for subjective weighting, and entropy weight method for objective weighting, and proposed a quantitative evaluation method. Liu et al. [29] established a feasibility evaluation model for hydraulic fracturing of hydrate-containing sediments based on AHP-entropy method. We are very grateful to these four studies for their valuable experience, because we will also use the AHP-entropy method in this study.Jiang et al. [30] used multi-level analysis and decision-making methods to propose an adaptive multi-factor public opinion risk evaluation framework based on fuzzy numbers. Li et al. [31] designed a risk evaluation indicator system for public-private partnership (PPP) projects based on the Delphi expert survey method, and established an optimization model for risk evaluation of Chinese PPP projects by using the F-AHP method.Zhang et al. [32]proposed a decision-making framework based on FCE and AHP. Based on the data of 2018 and 2019, Wang et al. [33] used the AHP and FCE method to evaluate the multi-objective optimization scheme.Su et al. [34] proposed a geophysical prospecting selection evaluation method based on comprehensive weight, which realized the transition from empirical decision-making to scientific decision-making. It can be seen from the above studies that the scientific method of public opinion risk prevention and control is mainly based on the idea of systems engineering. The methods used mainly include AHP, entropy method, combination evaluation method, and FCE method, etc. Combined with the reliability evaluation theory of systems engineering, these studies use data analysis, algorithm design and system simulation methods to conduct the research on public opinion risk prevention and control. We are very grateful for the contribution of the above research results, as they bring technical support to the design of the AHP-entropy method for calculating the weight of indicators in this research.

In general, there are many studies on public opinion management, educational public opinion management and public opinion risk evaluation methods in the world. Whether from the perspective of scientific methods or practical case support, they can provide experience and reference for this research. However, as China's policy of the modernization of national governance capacity and governance system has been proposed, and the current crisis brought about by the COVID-19 pandemic has impacted the international Internet platform, it is particularly important to strengthen the management of public opinion in college education. If the prevention and control of public opinion is not handled in a timely manner, resulting in the spread of various public opinions, it is very likely that social stability and the normal life order of the people will be at risk. This research is carried out under the background of the modernization of China's national governance capacity and the background of the COVID-19 pandemic.

Through the analysis of the current situation and the causes of college educational public opinion, it is proposed in this research to use scientific evaluation methods to evaluate and rank the importance of educational public opinion indicators. Countermeasures and suggestions are proposed for public opinion management in college education under the background of the modernization of national governance capacity. The research of this paper is finished based on the existing studies, expecting to provide a new way of thinking and solution for the management of educational public opinion.

3. ANALYSIS OF THE CRISIS OF PUBLIC OPINION IN COLLEGE EDUCATION AND ITS CAUSES

Affected by the COVID-19 pandemic, the Chinese Ministry of Education has adopted a teaching model of classes suspended but learning continues [35]. The large-scale online teaching mode, while meeting the needs of students in class, has also caused many problems, and even formed public opinion on education in severe cases[36]. Analyzing the crisis of public opinion in college education and its causes is of great significance for improving the level of governance in colleges and improving the quality of education.

First, the further improvement of the Internet infrastructure has promoted the diversification, democratization, and liberalization of college students' opinions, resulting in frequent negative events, and most of them are easily transformed into public opinion. According to the 2020 Communications Industry Statistical Bulletin of the Ministry of Industry and Information Technology of China, during the 13th Five-Year Plan period, China built the world's largest information and communication network. As of December 2020, the total number of optical fiber access users in China reached 454 million, an increase of 334 million or 278% over December 2015; the total number of 4G users in China reached 1.289 billion, an increase of 903 million over December 2015, an increase of 234%. Since the commercial operation of 5G in 2019, China has built the world's largest 5G network, with over 718 thousand 5G base stations and 200 million 5G terminal connections. Thanks to the comprehensive advancement of Internet infrastructure, as of December 2020, the number of Chinese netizens reached 989 million, an increase of 301 million over December 2015. In the face of the sudden COVID-19 pandemic, the Internet has shown great power. China's national government service platform launched the *health code*, which has been applied by 900 million people and used more than 40 billion times. Besides, major online education platforms have launched various free live courses for students to study at home, and the number of users has grown rapidly. While the Internet empowers the anti-epidemic movement, it also provides freedom for college students to output their opinions. Second, for the needs of epidemic prevention, many colleges adopt closed-off management. In this situation, college students are prone to negative emotions such as deprivation, loss, and venting of anger. If there are negative events such as improper words and deeds of teachers, campus management, and food safety, college students will naturally obtain moral and legal care through WeChat, Weibo, short video APP and other online platforms. Third, in the face of public opinion, the education authorities are seriously absent and dislocated, and cause the phenomena such as slow response, untimely information release, and simple and rude handling, resulting in the expansion of the public opinion crisis.

4. CONSTRUCTION OF PUBLIC OPINION RISK EVALUATION INDICATOR SYSTEM IN COLLEGE EDUCATION

4.1 Analysis of elements of public opinion in college education and definition of public opinion risk

The public opinion of college education refers to the process in which college students express their emotions, attitudes and wishes on the occurrence, development and disposal of emergencies through the Internet under the stimulation of emergencies, and carry out information transmission and interaction. The public opinion of college education is composed of many elements, including the subject of public opinion, the object of public opinion, the matter of public opinion, and the place of public opinion. The specific composition is shown in Fig. 2.
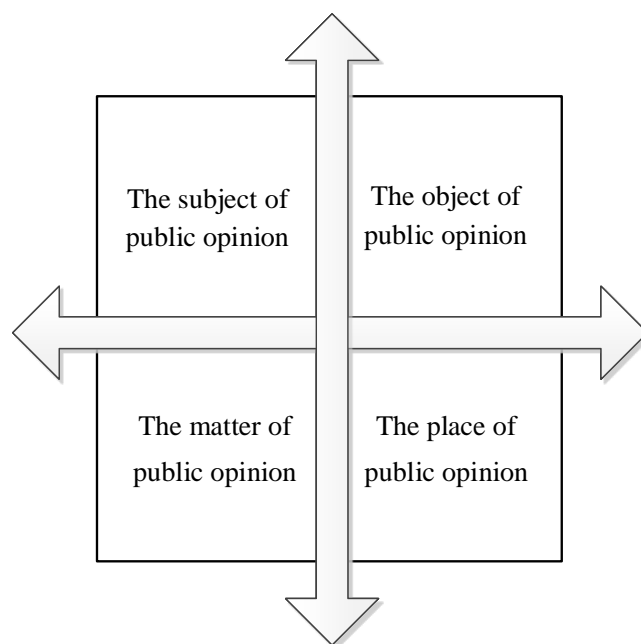
Fig. 2 Elements of public opinion in college education

The subject of public opinion refers to the actual participants, including teachers, students, parents, educational decision makers, educational administrative logistics personnel, educational researchers, etc., as well as the general public who indirectly participate. From the current point of view, college students are one of the most dynamic groups in various social groups, and they are also the main part of various educational public opinion participation. Therefore, this study is mainly aimed at the group of college students. The object of public opinion refers to the organization, department or individual involved in the public opinion of college education. The matter of public opinion refers to the specific events that lead to the formation and evolution of public opinion in college education. The place of public opinion refers to the specific place where public opinion is generated, evolved and developed, that is, various networks, platforms, and communities that provide places for the evolution and generation of public opinion. The public opinion of college education is actually a process of interaction of various public opinion elements. The public opinion risk in college education refers to the public's emotions, attitudes and willingness to express their emotions, attitudes and willingness on the occurrence, development, and disposal of public opinion events in colleges through the Internet, which may result in low efficiency of emergency response to public opinion events and serious impact on the economic and social order.

4.2 The risk evaluation indicator system of public opinion in college education

The construction of risk evaluation indicators is an important prerequisite for the risk evaluation of public opinion in college education. Without an evaluation indicator system or an unscientific evaluation system, this evaluation process cannot be implemented. Therefore, to scientifically construct the evaluation indicator system of public opinion risk in college education, we need to follow four principles. First, the principle of integrity, that is, the evaluation indicator is required to comprehensively, effectively and truly reflect the actual content of public opinion risk in college education. A certain indicator cannot be deliberately exaggerated to affect the objectivity of the evaluation results. Second, the systemic principle, that is, to ensure that each indicator supports each other and it is a good system. Third, the principle of highlighting the key points. The evaluation indicators of public opinion risk in college education are not necessarily many or complex, but are representative and can reflect the characteristics of public opinion risks in college education to the greatest extent, to construct effective and focused indicator evaluation indicator system. Fourth, the principle of measurability, which requires that the public opinion risk indicator system of college education can be defined in operational language.

Even if it is an indicator that cannot be directly quantified, its qualitative description should be measurable. If there is no direct measurable indicator, the potential indicator must be able to be measured through indirect way. Based on the above principles and combined with the analysis of public opinion elements in college education, this paper constructs a risk evaluation indicator system for public opinion in college education. The overall indicator system has a total of 17 indicators, which are divided into three levels, i.e. the overall indicator level, the type evaluation indicator level, and the individual evaluation indicator level, as shown in Table 2.

Table 2 The evaluation indicator system of public opinion risk in college education

Overall indicator level	Type evaluation indicator level	Individual evaluation indicator level	The meaning of individual evaluation indicator
The evaluation indicator system of public opinion risk in college education based on public opinion elements X_1	Subject of public opinion Y_{11}	Number of college students Z_{111}	Number of college students who participated in public opinion.
		Number of CPC members of college students Z_{112}	Number of CPC members who participated in public opinion among college students.
		Maturity of college students Z_{113}	Maturity of college students who participated in public opinion.
		Ideological situation of college students Z_{114}	Ideological status of college students who participated in public opinion.
	Object of public opinion Y_{12}	Nature of the object involved Z_{121}	Nature of the organization affected by the public opinion is a public institution or a private institution, an independent legal entity or a secondary college (department), department, etc.
		Number of objects involved Z_{122}	Number of organizations involved in public opinion.
		Response time of the department involved Z_{123}	Time interval between the occurrence of public opinion and the response of the organization involved in public opinion.
	Matter of public opinion Y_{13}	Sensitivity of public opinion matter Z_{131}	Degree of attention of college students to public opinion matters.
		Duration of public opinion matter Z_{132}	Specific duration of the public opinion matter.
		Number of people involved in public opinion matter Z_{133}	Number of parties involved in the public opinion matter.
	Place of public opinion Y_{14}	Number of networks Z_{141}	Number of public opinion matters on the Internet.
		Number of websites that publish public opinion issues Z_{142}	Number of websites publishing public opinion issues.
		Number of texts published on public opinion issues Z_{143}	Number of public opinion issues published in text.
		Number of pictures published on public opinion issues Z_{144}	Number of public opinion issues published in pictures.
		Distribution of provinces by college students who browse public opinion topics Z_{145}	Distribution of provinces by college students who browse public opinion topics
		Number of responses to public opinion issues Z_{146}	Number of responses from college students for public opinion issues.
		Number of times that college students browse public opinion topic websites Z_{147}	Number of times that college students browse public opinion topic websites.

5. RISK EVALUATION METHOD BASED ON AHP-ENTROPY METHOD

In this study, a subjective and objective weighting method based on AHP and entropy method is used to calculate the weight value. The advantage of this method is that it considers both the subjectivity and objectivity of the weight. The combination of the two methods can effectively make up for each other's deficiencies.

The AHP method transforms multi-objective, multi-criteria and difficult-to-fully-quantify decision-making problems into multi-level single-objective problems, and has been widely used in different fields. The main implementation steps of AHP are as follows. (1) According to the nature of the problem and the goal to be achieved, the decision-related factors are classified in different levels (2) Every two factors are scored through comparison by following the evaluation scale of the AHP, to establish a judgment matrix. (3) Eigenvalues and eigenvectors are obtained through the corresponding judgment matrix. (4) The consistency is checked, if the consistency check requirements are met, the normalized vector is the size of the weight value; if not, the comparison matrix needs to be adjusted, and the calculation is performed again. The problem that needs to be decided is divided into the target level, criterion level and scheme level from top to bottom by the AHP method. The hierarchical structure model is used to express the relationship and mutual influence degree between these factors. The analysis steps of this method are as follows.

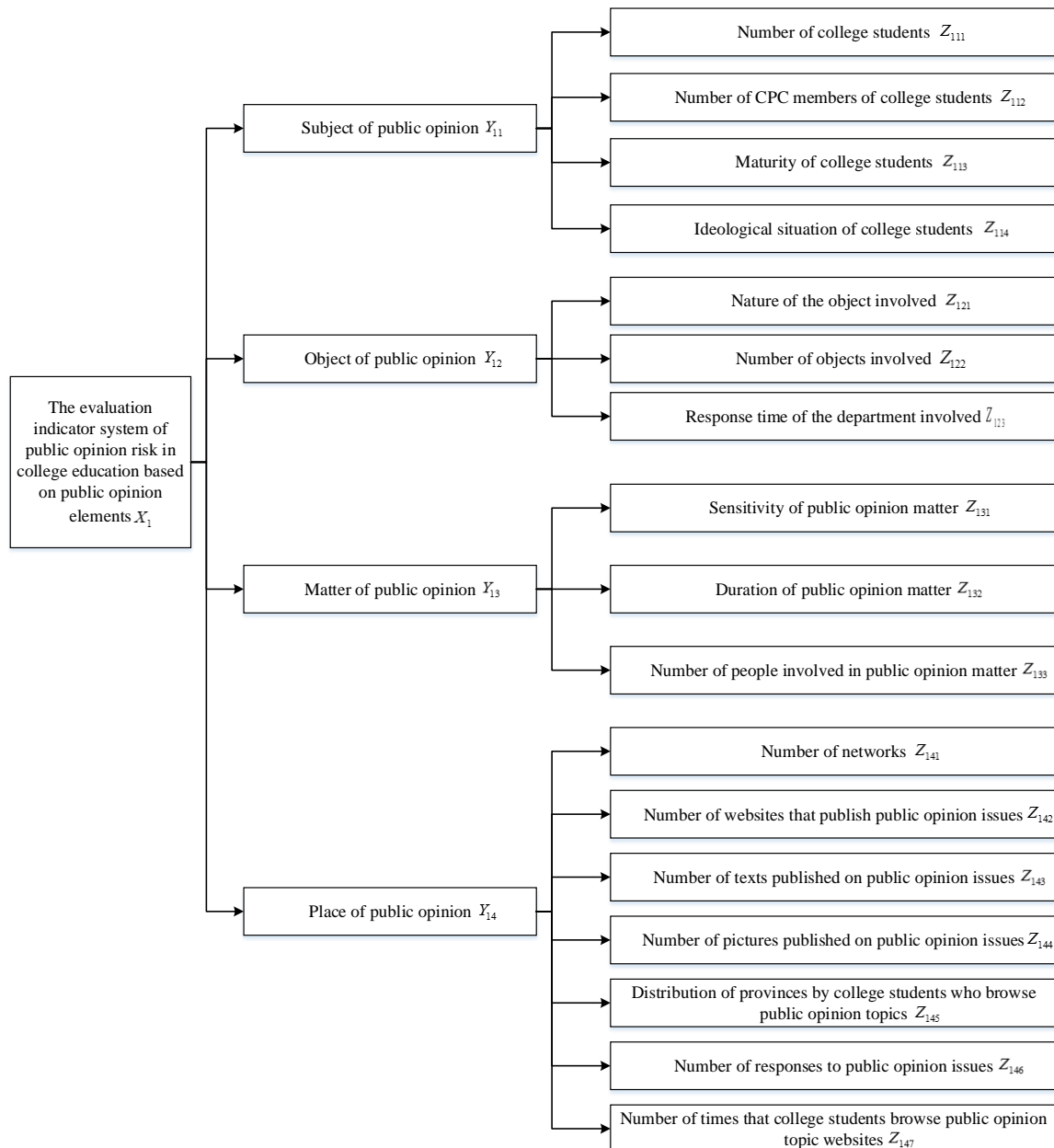## (1) Build a hierarchical structure model

Fig. 3 The model of the evaluation indicator system of public opinion risk in college education

According to the requirements, the model of target level-criterion level-scheme level is established. If there are too many factors in the criterion level, it can be divided into multiple levels according to the affiliation between the factors.

(2) **Construct a pairwise comparison judgment matrix** A

The value of the judgment matrix reflects the decision-maker's understanding of the relative importance of factors. Generally, the identification method of 1-9 and its reciprocal is used. The evaluation scale table of the AHP method is shown in Table 3.

Table 3 Evaluation scale table of AHP method

Comparison standard	Meaning
1	Factor i is just as important as factor j
3	Factor i is slightly more important than factor j
5	Factor i is significantly more important than factor j
7	Factor i is strongly more important than factor j
9	Factor i is extremely more important than factor j
2,4,6,8	A compromise value between the above two comparison criteria
reciprocal	Standard value by the comparison between factor j and factor i

(3) **Calculate the combined weight vector**

The maximum eigenvalue of the judgment matrix and its corresponding eigenvector can be calculated by

$$AW = \lambda_{\max} W \tag{1}$$

where A is the judgment matrix, $\lambda_{\max}$ is the largest eigenvalue of A; W is its corresponding eigenvector.

(4) Check consistency

The relative weight of the indicator obtained according to the eigenvector corresponding to the largest eigenvalue on the influence of the previous indicator needs to be checked for consistency, and the consistency indicator is calculated by

$$CI = \frac{\lambda_{\max} - n}{n - 1} \tag{2}$$

where CI is the consistency indicator; n is the number of indicators.

The consistency test discriminant is CR given by

$$CR = \frac{CI}{RI} \tag{3}$$

where CR is the consistency test discriminant, and RI is the average random consistency indicator. RI is only related to n. When $CR < 0.1$, the consistency of the judgment matrix is A considered to be qualified, and the result has a certain degree of credibility. If $CR \geq 0.1$, the matrix needs to be adjusted until the consistency check passes. Finally, when the judgment matrix A has satisfactory consistency, the feature vector W corresponding to $\lambda_{\max}$ is the corresponding weight vector of the evaluation indicator.

The AHP method is more logical and more credible in the analysis of the importance of each indicator, but the judgment of the relative importance of each indicator is subjective. The entropy value method uses the size of the entropy value of the indicator itself to determine its weight. By determining the reliability of the data itself through the entropy weight, the weight obtained by the AHP can be corrected and the subjectivity brought by the AHP itself can be reduced.

After the entropy value method is introduced, calculating the indicator weights can improve the reliability of the evaluation model.

Since the contents reflected by the indicators are all different and not directly comparable, it is necessary to normalize the indicators first to eliminate the dimensional influence. There are no negative indicators in this study, and the range method is used to normalize the indicators, as expressed by

$$Y_{ij} = \frac{B_{ij} - \left(B_{ij}\right)_{\min}}{\left(B_j\right)_{\max} - \left(B_j\right)_{\min}} \tag{4}$$

where i is the evaluator number; j is the evaluation indicator number; Y_{ij} is the data of the ith evaluator under the jth indicator after normalization; B_{ij} is the data of the ith evaluator under the jth indicator in the original data; $\left(B_{ij}\right)_{\min}$ is the minimum value in the original evaluation data; $\left(B_j\right)_{\min}$ is the minimum value of the jth evaluation indicator; $\left(B_j\right)_{\max}$ is the maximum value of the jth evaluation indicator.

Since the indicators involve percentage variables, in order to avoid the weight of 0, the indicators with a normalized value of 0 are calculated as 0.01.

First, calculate the proportion of the ith evaluator under the jth indicator, as shown by

$$P_{ij} = \frac{Y_{ij}}{\sum\limits_{i=1}^{n} Y_{ij}} \tag{5}$$

Then, calculate the indicator entropy value, as shown by

$$e_j = -\frac{1}{\ln n} \sum_{i=1}^{m} P_{ij} \ln P_{ij} \tag{6}$$

where e_j is the entropy value of the jth evaluation indicator; m is the number of evaluators.

Finally, the entropy weight of the indicator is calculated by

$$S_j = \frac{1 - e_j}{\sum\limits_{j=1}^{n} \left(1 - e_j\right)} \tag{7}$$

where S_j is the entropy weight of the jth indicator.

The indicator weights obtained by the AHP and the entropy method are comprehensively calculated to obtain the combined weights, as given by

$$C_j = \frac{W_j S_j}{\sum\limits_{j=1}^{n} W_j S_j} \tag{8}$$

where C_j is the combined weight of the jth indicator; W_j is the weight of the jth indicator calculated by the AHP.

The AHP decision matrix is obtained by experts scoring. The credibility standard of experts is judged from five aspects, i.e. working years, education, major, experience and title. The specific standard weights are shown in Table 4.

Table 4 Expert scoring weight table

Factors	Weight r	Level	Score s
		>30	0.8
Working years	3	15-30	0.6
		<15	0.4
		PhD	0.8
Education	2	Master	0.6
		Bachelor	0.4
		Pedagogy	0.8
Profession	2	Sociology	0.6
		Politics	0.4
Experience	2	With teaching experience	0.8
		Without teaching experience	0.4
		Professor	0.8
Title	1	Associate professor	0.6
		Lecturer	0.4

The formula for calculating expert credibility is given by:

$$R = \frac{\sum_{i=1}^{5} r_i s}{\sum_{i=1}^{5} r_i} \tag{9}$$

where R represents the credibility of experts.

6 ASSESSING THE RISK PREVENTION AND CONTROL OF PUBLIC OPINION IN COLLEGE EDUCATION FROM THE PERSPECTIVE OF COVID-19—A CASE STUDY

For the prevention and control of public opinion risks in college education, COVID-19 was taken as a research perspective, and 5 experts were invited from the Institute of Sociology at Chinese Academy of Social Sciences (CASS) to rank and score the importance of 17 indicators. The obtained decision matrix is shown in Table 5 and Table 6.

Table 5 Decision matrix S_1 for public opinion evaluation of college education based on AHP method

	Z_{111}	Z_{112}	Z_{113}	Z_{114}	Z_{121}	Z_{122}	Z_{123}	Z_{131}	Z_{132}	Z_{133}	Z_{141}	Z_{142}	Z_{143}	Z_{144}	Z_{145}	Z_{146}	Z_{147}
Z_{111}	(0.0, 0.0)	(0.5, 0.4)	(0.8, 0.1)	(0.5, 0.4)	(0.5, 0.2)	(0.6, 0.3)	(0.6, 0.2)	(0.4, 0.4)	(0.4, 0.4)	(0.5, 0.4)	(0.5, 0.2)	(0.8, 0.2)	(0.7, 0.2)	(0.5, 0.4)	(0.9, 0.1)	(0.5, 0.4)	(0.8, 0.1)
Z_{112}	(0.5, 0.2)	(0.0, 0.0)	(0.5, 0.4)	(0.7, 0.3)	(0.8, 0.1)	(0.4, 0.4)	(0.5, 0.2)	(0.6, 0.4)	(0.6, 0.4)	(0.5, 0.2)	(0.8, 0.1)	(0.7, 0.2)	(0.0, 0.0)	(0.5, 0.2)	(0.4, 0.3)	(0.5, 0.2)	(0.5, 0.5)
Z_{113}	(0.7, 0.1)	(0.6, 0.2)	(0.0, 0.0)	(0.5, 0.4)	(0.0, 0.0)	(0.0, 0.0)	(0.8, 0.1)	(0.5, 0.4)	(0.5, 0.4)	(0.4, 0.2)	(0.8, 0.1)	(0.5, 0.4)	(0.5, 0.2)	(0.4, 0.2)	(0.5, 0.2)	(0.4, 0.2)	(0.5, 0.5)
Z_{114}	(0.5, 0.4)	(0.5, 0.2)	(0.5, 0.4)	(0.0, 0.0)	(0.8, 0.2)	(0.2, 0.7)	(0.8, 0.1)	(0.7, 0.3)	(0.7, 0.3)	(0.0, 0.0)	(0.4, 0.4)	(0.5, 0.2)	(0.9, 0.1)	(0.0, 0.0)	(0.8, 0.1)	(0.0, 0.0)	(0.0, 0.0)
Z_{121}	(0.6, 0.4)	(0.8, 0.1)	(0.4, 0.3)	(0.5, 0.4)	(0.0, 0.0)	(0.5, 0.1)	(0.4, 0.5)	(0.6, 0.4)	(0.5, 0.4)	(0.4, 0.3)	(0.6, 0.4)	(0.4, 0.2)	(0.6, 0.4)	(0.4, 0.3)	(0.8, 0.1)	(0.4, 0.3)	(0.4, 0.4)
Z_{122}	(0.7, 0.1)	(0.8, 0.1)	(0.5, 0.2)	(0.4, 0.3)	(0.7, 0.2)	(0.0, 0.0)	(0.8, 0.2)	(0.8, 0.2)	(0.8, 0.1)	(0.6, 0.2)	(0.5, 0.4)	(0.0, 0.0)	(0.6, 0.4)	(0.7, 0.3)	(0.4, 0.4)	(0.6, 0.2)	(0.6, 0.4)
Z_{123}	(0.3, 0.4)	(0.4, 0.5)	(0.8, 0.1)	(0.5, 0.2)	(0.6, 0.4)	(0.4, 0.3)	(0.0, 0.0)	(0.7, 0.2)	(0.5, 0.5)	(0.9, 0.1)	(0.7, 0.3)	(0.4, 0.3)	(0.6, 0.2)	(0.2, 0.7)	(0.6, 0.4)	(0.9, 0.1)	(0.5, 0.4)
Z_{131}	(0.3, 0.5)	(0.0, 0.0)	(0.0, 0.0)	(0.8, 0.1)	(0.5, 0.3)	(0.5, 0.3)	(0.6, 0.4)	(0.0, 0.0)	(0.5, 0.5)	(0.5, 0.3)	(0.2, 0.7)	(0.6, 0.2)	(0.5, 0.2)	(0.5, 0.1)	(0.5, 0.4)	(0.5, 0.3)	(0.7, 0.3)
Z_{132}	(0.0, 0.0)	(0.7, 0.2)	(0.8, 0.2)	(0.0, 0.0)	(0.6, 0.3)	(0.7, 0.1)	(0.6, 0.4)	(0.5, 0.4)	(0.0, 0.0)	(0.8, 0.1)	(0.5, 0.1)	(0.9, 0.1)	(0.8, 0.1)	(0.6, 0.4)	(0.7, 0.3)	(0.8, 0.1)	(0.5, 0.4)
Z_{133}	(0.7, 0.2)	(0.5, 0.3)	(0.3, 0.7)	(0.8, 0.2)	(0.4, 0.4)	(0.5, 0.4)	(0.6, 0.2)	(0.4, 0.3)	(0.4, 0.4)	(0.0, 0.0)	(0.6, 0.4)	(0.5, 0.3)	(0.8, 0.1)	(0.0, 0.0)	(0.9, 0.1)	(0.5, 0.4)	(0.6, 0.4)
Z_{141}	(0.6, 0.3)	(0.6, 0.3)	(0.7, 0.3)	(0.3, 0.7)	(0.0, 0.0)	(0.6, 0.4)	(0.5, 0.2)	(0.5, 0.2)	(0.6, 0.4)	(0.7, 0.3)	(0.0, 0.0)	(0.8, 0.1)	(0.4, 0.5)	(0.9, 0.1)	(0.4, 0.3)	(0.8, 0.1)	(0.7, 0.1)
Z_{142}	(0.4, 0.4)	(0.5, 0.3)	(0.9, 0.1)	(0.7, 0.3)	(0.2, 0.7)	(0.7, 0.1)	(0.8, 0.1)	(0.8, 0.1)	(0.5, 0.4)	(0.5, 0.3)	(0.9, 0.1)	(0.0, 0.0)	(0.5, 0.4)	(0.5, 0.3)	(0.5, 0.2)	(0.5, 0.5)	(0.3, 0.7)
Z_{143}	(0.0, 0.0)	(0.7, 0.1)	(0.6, 0.4)	(0.9, 0.1)	(0.5, 0.1)	(0.3, 0.4)	(0.8, 0.1)	(0.0, 0.0)	(0.7, 0.3)	(0.5, 0.4)	(0.5, 0.3)	(0.0, 0.0)	(0.6, 0.4)	(0.8, 0.1)	(0.8, 0.1)	(0.5, 0.5)	(0.7, 0.3)
Z_{144}	(0.2, 0.7)	(0.5, 0.4)	(0.7, 0.1)	(0.5, 0.4)	(0.6, 0.4)	(0.3, 0.5)	(0.4, 0.5)	(0.8, 0.2)	(0.5, 0.4)	(0.6, 0.4)	(0.8, 0.1)	(0.8, 0.2)	(0.5, 0.4)	(0.4, 0.3)	(0.8, 0.1)	(0.0, 0.0)	(0.9, 0.1)
Z_{145}	(0.5, 0.1)	(0.6, 0.4)	(0.3, 0.4)	(0.4, 0.3)	(0.6, 0.3)	(0.0, 0.0)	(0.5, 0.4)	(0.3, 0.7)	(0.6, 0.4)	(0.7, 0.1)	(0.4, 0.3)	(0.3, 0.7)	(0.6, 0.4)	(0.5, 0.2)	(0.0, 0.0)	(0.6, 0.4)	(0.8, 0.2)
Z_{146}	(0.6, 0.4)	(0.7, 0.1)	(0.3, 0.5)	(0.5, 0.2)	(0.5, 0.4)	(0.7, 0.2)	(0.6, 0.4)	(0.7, 0.3)	(0.7, 0.1)	(0.3, 0.4)	(0.5, 0.2)	(0.7, 0.3)	(0.6, 0.4)	(0.8, 0.2)	(0.5, 0.4)	(0.0, 0.0)	(0.7, 0.2)
Z_{147}	(0.9, 0.1)	(0.3, 0.4)	(0.0, 0.0)	(0.8, 0.1)	(0.2, 0.6)	(0.6, 0.4)	(0.5, 0.4)	(0.9, 0.1)	(0.3, 0.4)	(0.8, 0.2)	(0.8, 0.2)	(0.9, 0.1)	(0.3, 0.4)	(0.7, 0.3)	(0.6, 0.4)	(0.6, 0.4)	(0.0, 0.0)

Table 6 Decision matrix S_2 for public opinion evaluation of college education based on entropy method

	Z_{111}	Z_{112}	Z_{113}	Z_{114}	Z_{121}	Z_{122}	Z_{123}	Z_{131}	Z_{132}	Z_{133}	Z_{141}	Z_{142}	Z_{143}	Z_{144}	Z_{145}	Z_{146}	Z_{147}
Z_{111}	(0.5, 0.5)	(0.8, 0.1)	(0.0, 0.0)	(0.0, 0.0)	(0.7, 0.3)	(0.6, 0.4)	(0.6, 0.4)	(0.6, 0.4)	(0.4, 0.2)	(0.7, 0.2)	(0.6, 0.2)	(0.7, 0.3)	(0.8, 0.1)	(0.5, 0.4)	(0.6, 0.4)	(0.4, 0.3)	(0.5, 0.4)
Z_{112}	(0.0, 0.0)	(0.8, 0.1)	(0.4, 0.3)	(0.4, 0.3)	(0.2, 0.7)	(0.8, 0.2)	(0.6, 0.4)	(0.5, 0.4)	(0.0, 0.0)	(0.0, 0.0)	(0.5, 0.2)	(0.9, 0.1)	(0.4, 0.4)	(0.5, 0.2)	(0.7, 0.2)	(0.6, 0.2)	(0.5, 0.2)
Z_{113}	(0.4, 0.4)	(0.4, 0.5)	(0.6, 0.2)	(0.6, 0.2)	(0.5, 0.1)	(0.7, 0.2)	(0.6, 0.2)	(0.7, 0.3)	(0.4, 0.3)	(0.5, 0.2)	(0.8, 0.1)	(0.8, 0.2)	(0.6, 0.4)	(0.4, 0.2)	(0.8, 0.2)	(0.9, 0.1)	(0.4, 0.2)
Z_{114}	(0.6, 0.4)	(0.8, 0.2)	(0.9, 0.1)	(0.9, 0.1)	(0.6, 0.4)	(0.0, 0.0)	(0.5, 0.2)	(0.9, 0.1)	(0.6, 0.2)	(0.9, 0.1)	(0.8, 0.1)	(0.7, 0.2)	(0.5, 0.4)	(0.0, 0.0)	(0.7, 0.1)	(0.5, 0.3)	(0.0, 0.0)
Z_{121}	(0.5, 0.4)	(0.0, 0.0)	(0.5, 0.3)	(0.5, 0.3)	(0.0, 0.0)	(0.5, 0.4)	(0.8, 0.1)	(0.4, 0.3)	(0.9, 0.1)	(0.4, 0.3)	(0.7, 0.3)	(0.0, 0.0)	(0.7, 0.3)	(0.4, 0.3)	(0.7, 0.3)	(0.8, 0.1)	(0.4, 0.3)
Z_{122}	(0.7, 0.3)	(0.6, 0.4)	(0.8, 0.1)	(0.8, 0.1)	(0.9, 0.1)	(0.4, 0.3)	(0.8, 0.1)	(0.5, 0.2)	(0.5, 0.3)	(0.5, 0.2)	(0.2, 0.7)	(0.0, 0.0)	(0.9, 0.1)	(0.6, 0.2)	(0.0, 0.0)	(0.0, 0.0)	(0.6, 0.2)
Z_{123}	(0.5, 0.4)	(0.6, 0.4)	(0.7, 0.3)	(0.0, 0.0)	(0.5, 0.3)	(0.5, 0.2)	(0.4, 0.5)	(0.8, 0.1)	(0.8, 0.1)	(0.7, 0.2)	(0.5, 0.1)	(0.7, 0.2)	(0.4, 0.3)	(0.9, 0.1)	(0.5, 0.4)	(0.0, 0.0)	(0.9, 0.1)
Z_{131}	(0.6, 0.4)	(0.6, 0.2)	(0.5, 0.4)	(0.7, 0.3)	(0.8, 0.1)	(0.8, 0.1)	(0.5, 0.4)	(0.8, 0.1)	(0.0, 0.0)	(0.6, 0.4)	(0.6, 0.4)	(0.6, 0.4)	(0.5, 0.2)	(0.5, 0.3)	(0.6, 0.4)	(0.8, 0.2)	(0.5, 0.3)
Z_{132}	(0.7, 0.1)	(0.5, 0.2)	(0.8, 0.1)	(0.5, 0.3)	(0.4, 0.3)	(0.0, 0.0)	(0.6, 0.4)	(0.0, 0.0)	(0.7, 0.3)	(0.7, 0.2)	(0.0, 0.0)	(0.9, 0.1)	(0.8, 0.1)	(0.8, 0.1)	(0.7, 0.1)	(0.3, 0.7)	(0.8, 0.1)
Z_{133}	(0.3, 0.4)	(0.8, 0.1)	(0.5, 0.5)	(0.5, 0.4)	(0.5, 0.2)	(0.5, 0.2)	(0.5, 0.4)	(0.5, 0.4)	(0.5, 0.3)	(0.8, 0.2)	(0.9, 0.1)	(0.5, 0.3)	(0.8, 0.1)	(0.9, 0.1)	(0.3, 0.4)	(0.7, 0.3)	(0.0, 0.0)
Z_{141}	(0.6, 0.3)	(0.8, 0.1)	(0.5, 0.5)	(0.6, 0.4)	(0.8, 0.2)	(0.8, 0.2)	(0.5, 0.2)	(0.5, 0.2)	(0.5, 0.4)	(0.7, 0.1)	(0.5, 0.3)	(0.5, 0.4)	(0.0, 0.0)	(0.4, 0.3)	(0.4, 0.3)	(0.9, 0.1)	(0.8, 0.2)
Z_{142}	(0.4, 0.4)	(0.4, 0.5)	(0.0, 0.0)	(0.7, 0.1)	(0.2, 0.7)	(0.8, 0.2)	(0.8, 0.1)	(0.8, 0.1)	(0.5, 0.2)	(0.7, 0.3)	(0.8, 0.1)	(0.4, 0.3)	(0.5, 0.4)	(0.5, 0.2)	(0.5, 0.2)	(0.5, 0.5)	(0.3, 0.7)
Z_{143}	(0.0, 0.0)	(0.0, 0.0)	(0.4, 0.4)	(0.3, 0.4)	(0.5, 0.1)	(0.7, 0.2)	(0.8, 0.1)	(0.0, 0.0)	(0.8, 0.2)	(0.0, 0.0)	(0.4, 0.3)	(0.5, 0.2)	(0.6, 0.4)	(0.8, 0.1)	(0.8, 0.1)	(0.5, 0.5)	(0.7, 0.3)
Z_{144}	(0.2, 0.7)	(0.5, 0.3)	(0.6, 0.4)	(0.5, 0.4)	(0.6, 0.4)	(0.0, 0.0)	(0.4, 0.5)	(0.8, 0.2)	(0.5, 0.4)	(0.6, 0.4)	(0.5, 0.2)	(0.8, 0.1)	(0.5, 0.4)	(0.0, 0.0)	(0.8, 0.1)	(0.0, 0.0)	(0.9, 0.1)
Z_{145}	(0.5, 0.1)	(0.5, 0.4)	(0.5, 0.4)	(0.4, 0.3)	(0.6, 0.3)	(0.0, 0.0)	(0.5, 0.4)	(0.3, 0.7)	(0.6, 0.4)	(0.7, 0.1)	(0.8, 0.2)	(0.0, 0.0)	(0.6, 0.4)	(0.9, 0.1)	(0.0, 0.0)	(0.6, 0.4)	(0.8, 0.2)
Z_{146}	(0.6, 0.4)	(0.6, 0.4)	(0.7, 0.3)	(0.5, 0.2)	(0.5, 0.4)	(0.7, 0.2)	(0.6, 0.4)	(0.7, 0.3)	(0.7, 0.1)	(0.3, 0.4)	(0.7, 0.3)	(0.8, 0.2)	(0.7, 0.1)	(0.5, 0.3)	(0.5, 0.4)	(0.0, 0.0)	(0.7, 0.2)
Z_{147}	(0.9, 0.1)	(0.7, 0.1)	(0.5, 0.4)	(0.8, 0.1)	(0.2, 0.6)	(0.6, 0.4)	(0.5, 0.4)	(0.9, 0.1)	(0.3, 0.4)	(0.8, 0.2)	(0.8, 0.2)	(0.3, 0.7)	(0.3, 0.4)	(0.8, 0.1)	(0.6, 0.4)	(0.6, 0.4)	(0.0, 0.0)

According to Eq. (5)-Eq. (8), the matrix S_1 and S_2 can be used to obtain the real number matrix $D = \left(D_{ij} \right)_{m \times n}$ that reflects the indicator importance of the risk prevention and control of public opinion in college education.

$$D = \begin{Bmatrix} 0.735 & 1.226 & 0.986 & 1.234 & 1.098 & 1.657 & 1.546 & 1.786 & 2.567 \\ 1.268 & 1.124 & 0.345 & 1.267 & 1.121 & 0.678 & 1.789 & 1.567 & 2.675 \\ 0.642 & 1.198 & 0.657 & 1.789 & 0.567 & 1.106 & 2.234 & 1.235 & 0.999 \\ 1.688 & 3.068 & 0.953 & 1.902 & 0.679 & 1.204 & 2.567 & 0.694 & 1.567 \\ 0.992 & 0.998 & 0.486 & 1.923 & 1.235 & 2.222 & 2.765 & 1.689 & 1.643 \\ 0.235 & 3.556 & 2.456 & 1.231 & 1.953 & 2.395 & 2.103 & 0.694 & 1.567 \\ 2.456 & 2.454 & 1.245 & 2.456 & 2.067 & 2.432 & 2.041 & 1.694 & 1.754 \\ 0.981 & 0.567 & 1.654 & 0.567 & 0.694 & 1.029 & 0.776 & 0.875 & 0.979 \\ 2.565 & 0.465 & 1.903 & 0.668 & 2.456 & 0.532 & 0.909 & 0.532 & 1.234 \end{Bmatrix}$$

Combining the weight calculation formula obtained by Eq. (8), the importance of the indicators can be calculated and ranked as follows:

$$M = \begin{bmatrix} Z_{111} \\ Z_{112} \\ Z_{113} \\ Z_{114} \\ Z_{121} \\ Z_{122} \\ Z_{123} \\ Z_{131} \\ Z_{132} \\ Z_{133} \\ Z_{141} \\ Z_{142} \\ Z_{143} \\ Z_{144} \\ Z_{145} \\ Z_{146} \\ Z_{147} \end{bmatrix} = \begin{bmatrix} 1.265 \\ 1.064 \\ 1.243 \\ 1.217 \\ 1.098 \\ 1.198 \\ 1.345 \\ 1.146 \\ 1.143 \\ 1.156 \\ 1.785 \\ 1.423 \\ 0.985 \\ 1.324 \\ 1.306 \\ 1.257 \\ 1.224 \end{bmatrix}$$

It can be seen from the above research that, in terms of the importance of risk evaluation indicators, the most important indicator that affects the management of public opinion in college education is the number of Internet participation in public opinion matters Z_{141}, followed by the number of websites that publish public opinion issues Z_{142}, response time of the department involved Z_{123}, number of pictures published on public opinion issues Z_{144}, distribution of provinces by college students who browse public opinion topics Z_{145}, number of college students Z_{111}, number of responses to public opinion issues Z_{146}, maturity of college students Z_{113}, number of times that college students browse public opinion topic websites Z_{147}, ideological situation of college students Z_{114}, number of objects involved Z_{122}, number of people involved in public opinion matters Z_{133}, sensitivity of public opinion matter Z_{131}, duration of public opinion matter Z_{132}, nature of the object involved Z_{121}, number of CPC members of college students Z_{112}, and number of texts published on public opinion issues Z_{143}.

7 WAYS TO MANAGE PUBLIC OPINION RISK CRISIS IN COLLEGE EDUCATION UNDER THE BACKGROUND OF THE MODERNIZATION OF NATIONAL GOVERNANCE CAPACITY

Combined with the evaluation results of the importance of the indicators in college education given in this study, given that the top three most important indicators are the number of Internet participation in public opinion matters, the number of websites that publish public opinion issues, and the response time of the department involved, we propose the following five governance approaches.

(1) Pay attention to the legitimate demands of students, make actions in advance, and eliminate the risk of public opinion in the early stage.

Educational public opinion is a reflection of the material life process of society, and it arises from the major problems of the current society, and the public opinion caused by the COVID-19 pandemic is no exception. The COVID-19 pandemic is closely related to the lives of college students, and information related to the epidemic is most likely to attract widespread attention. The COVID-19 pandemic has greatly increased the uncertainty of the human living environment, and has also truly affected the living and learning environment of college students. Changes in learning methods from offline to online, limited purchasing of daily necessities and three meals a day, increased difficulty in further studies and employment have made them highly nervous, and the negative information about the COVID-19 pandemic has boosted the generation and spread of negative emotions of college students such as anxiety, sadness, fear, depression, and irritability. Under this circumstance, it has become a new normal for college students to use the Internet to pay attention to the development of the epidemic, and to interact with each other to seek and build a sense of security. Colleges are not only managers of educational public opinion, but also supporters and helpers of students. For this reason, the competent departments of colleges should pay attention to the study, life and physical conditions of college students in the governance of educational public opinion, meet their normal material life needs, capture their emotional changes, psychological appeals and ideological fluctuations, and approach college students with rich humanistic feelings. Besides, it is also suggested to empathize with their growing troubles, share their happiness after maturity, guide them to face the group psychological problems caused by the public opinion of college education under the background of the COVID-19 pandemic, guide them to correctly view the changes of world events, partings of life and death, good times and adversities, and enhance psychological resistance and self-adjustment ability under pressure, which can eliminate the risk of public opinion in the early stage.

(2) Strengthen the monitoring of public opinion, focus on the early and small issues, and minimize the number of Internet participation in public opinion matters.

Due to the characteristics of immediacy, suddenness, anonymity and concealment of educational public opinion, grasping the process of educational public opinion governance in colleges can accurately predict the development trend of educational public opinion and improve the effectiveness of educational public opinion governance. Referring to the research conclusions of American crisis management expert Robert Heath, avoiding the occurrence of crises or eliminating crises in the early stage is the most cost-effective, most economical and most successful crisis management method (Robert Heath, 2004). Therefore, a scientific and reasonable educational public opinion early warning system should be established, and public opinion monitoring and early warning should be strengthened. When a public opinion event has just appeared and the number of online participation is relatively small, the person responsible for education and public opinion governance should pay close attention, block the path of public opinion dissemination, and control the risk of public opinion in the smallest range.

(3) Respond to the concerns of netizens in a timely manner, reduce the popularity, and reduce the number of websites that publish public opinion issues.

There is a golden 4-hour rule in public opinion risk management, that is, to seize the right to speak and seize the opportunity at the first time. After an educational public opinion event occurs, the department responsible for educational public opinion can use a combination of online and offline methods to manage the public opinion crisis. Online investigations should be conducted in a timely manner, information should be released objectively, accurately, and comprehensively, to respond to the concerns of netizens as soon as possible, clarify the facts, and prevent the spread of rumors.

In terms of offline measures, attention should be paid to easing students' emotions, not only to solve students' ideological problems, but also to solve students' practical problems. The young college students are featured by curiosity, sensitivity, and enthusiasm. They talk about hot issues of the COVID-19 pandemic before and after meals, complain at bedtime chats, make comments on Weibo, post Douyin or Kuaishou videos, and make Likes from WeChat Moments, which can all boost the development of public opinion. Therefore, while using traditional methods to resolve public opinion skillfully, colleges need to introduce new technologies such as public opinion information capture, public opinion information correlation mining and analysis, and promote the interactive and integrated development between traditional media such as school newspapers, bulletin boards, and school magazines with emerging media such as Weibo, WeChat and Douyin. This can effectively reduce the heat of public opinion and reduce the number of websites that publish public opinion issues, thereby resolving the crisis of public opinion.

(4) Improve the overall quality of the public opinion governance team, boost coordinated governance, and build a new pattern of public opinion governance.

The overall quality of the main body of public opinion governance has a significant impact on whether it can respond to the concerns of netizens in a timely and correct manner. The main body of public opinion governance has the characteristics of diversity. The key to building an educational public opinion governance team is to form a standardized collaborative governance team, that is, relying on existing resources to form a multi-center, multi-level, parallel network public opinion governance organizational structure. In terms of personnel composition, educational public opinion governance teams can be divided into three categories, i.e. educational public opinion managers, educational researchers and teachers, and student opinion leaders. Educational public opinion managers have high political literacy and are familiar with the laws of educational public opinion dissemination, and are responsible for coordinating the entire process of educational public opinion governance. Therefore, this type of personnel needs to improve their literacy in media operation, cultivate professional work ability for public opinion, establish overall thinking, be student-oriented, and create a harmonious, stable and orderly campus network environment. Educational researchers and teachers should improve their ability to deal with public opinion. Among them, ideological and political teachers should put value guidance first, guide students' thinking in classroom interaction, and help them establish a correct view on world, life and values. Professional teachers of public basic courses should guide students in value while imparting knowledge and improving their abilities, and walk in the same direction with teachers of ideological and political courses to form a synergistic effect. Counselors and class teachers should be both teachers and friends, integrate into the student's cyberspace, speak diligently, speak well and speak skillfully. Student opinion leaders should improve their ability to identify information, learn to think independently, consciously resist negative information, and actively guide online public opinion.

(5) Strengthen the construction of educational public opinion governance security system, increase investment, and build a three-dimensional educational public opinion governance system.

Public opinion governance in colleges involves multiple departments and is a systematic project, so a multi-departmental linkage mechanism should be established. First, it is needed to establish an educational public opinion management center, increase capital investment, strengthen professional training, and improve the professionalism of public opinion management personnel. The second is to improve the educational public opinion governance system, increase the level of attention, and scientifically formulate key indicators for educational public opinion early warning. Third, combined with the dissemination characteristics of educational public opinion, it is suggested to systematically sort out the work at various stages such as the incubation period, the generation and outbreak period, and the fallback period, and establish and improve a three-dimensional network public opinion governance system that assigns responsibility to people.

8. REASONS FOR CONDUCTING THIS RESEARCH

The modernization of national governance capacity is called China's fifth modernization. Under this goal, promoting the modernization of public opinion guidance that adheres to the correct orientation is its due meaning. However, there are still many unsatisfactory aspects in the current public opinion guidance work. The frequent occurrence of negative educational public opinions in colleges not only seriously affects the growth and success of students, but also seriously affects the reputation of colleges. Especially under the severe impact of the COVID-19 pandemic, the contradiction between the normal learning and living needs of students and the unbalanced and insufficient supply of colleges has become prominent. It is extremely necessary to meet the growth needs of students and prevent and resolve public opinion crises while meeting the normalization requirements of epidemic prevention and control. To this end, this study reviews the relevant literature on international public opinion management and educational public opinion management, analyzes the crisis of public opinion in college education and its causes, and constructs an indicator system for risk evaluation of public opinion in college education, in order to find an appropriate risk evaluation method suitable for public opinion in colleges. This research provides a meaningful governance approach for the public opinion risk crisis in college education under the background of the modernization of national governance capacity.

9. CONCLUSIONS

The following three conclusions are drawn from this study.

(1) The crisis and causes of public opinion in college education are put forward from the perspectives of Internet platform, students and education management. Analyzing the crisis of public opinion in colleges and its causes can be of great significance to the improvement of the level of education governance and the improvement of educational governance in colleges.

(2) A public opinion risk indicator system for college education is constructed, which is composed of 17 three-level indicators. The proposed indicator importance evaluation method based on AHP-entropy method shows good applicability for studying such issues.

(3) Combined with actual case studies, this paper proposes the governance approaches for dealing with public opinion risk crisis in colleges under the background of the modernization of national governance capacity from multiple dimensions, including student demand, network public opinion management, educational public opinion governance, building public opinion governance team and establishing and improving the public opinion security system.

Declarations

Ethics Approval All procedures performed in studies involving human participants were in accordance with the ethical standards of the Research Ethics Review Committee of Faculty of Education, Zhengzhou Health Vocational College. Informed Consent Informed consent was obtained from all individual participants included in the study. Students volunteered to participate in this study, and the data was reported anonymously by researchers. Conflict of Interest The authors declare no competing interests.

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Data Announcements

This research is an important research project that we have carried out with the research team of the Institute of Sociology of the Chinese Academy of Social Sciences. At present, the project has not been finished, so the data used in this research cannot be publicly presented.