

Research on Public Opinion Guidance of College Emergencies Based on the 5W Model

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Abstract: College emergencies are easy to evolve into major public opinions. How to accurately guide college emergencies' public opinions is crucial for universities to cope with emergency crises. From the perspective of communication, this paper analyzes the causes and communication characteristics of public opinion in college emergencies in the context of new media. Based on the 5W model, the factors affecting the public opinion communication effect of emergencies are constructed. D-ANP, a multiple-criteria decision-making technique combining the DEMATEL (decision-making trial and evaluation laboratory) and ANP (analytical network process), is used to identify the key factors affecting public opinion communication in college emergencies, and the targeted guidance strategies are proposed. The result extends the 5W model to the application situation of college emergencies, which provides a reference for universities to deal with emergencies, alleviate public opinion crises and maintain campus security and stability.

Keywords: college emergencies, public opinion guidance, D-ANP, 5W model

1 INTRODUCTION

With the rapid development and wide application of new media such as WeChat and Weibo, people are increasingly accustomed to expressing their opinions and views on various emergencies through the Internet. A college emergency usually refers to a sudden occurrence in colleges and universities, that brings harm to the daily life and personal safety of college students, affect the normal operation of the school, urgent emergency treatment.

College emergencies are easy to generate online public opinions due to the particularity of college students, such as aggregation, youth, and emotions. Once the emergency treatment is improper, it will trigger hot discussion in the media, and then trigger the negative emotions of the group, which is easily evolving into a major social emergency, causing serious harm, endangering life safety, campus security and stability, and even affecting social security and stability. When emergencies occur in colleges and universities, they often lack sufficient knowledge of crisis management and have weak psychological tolerance.

The 5W communication model^[1] provides a theoretical basis for understanding public opinion communication in college emergencies. This paper analyzes the characteristics of university emergency public opinion from the perspective of communication and adopts the method of D-ANP to identify the key factors affecting public opinion communication in college emergencies.

2 LITERATURE REVIEW

In recent years, various crisis events such as accidental injuries and food poisoning have also occurred in colleges and universities. Scholars have paid extensive attention to the emergencies in colleges and universities and obtained abundant research results. Sousa emphasized that in emergencies, schools should make adequate preparation for emergency management, and school personnel should respond calmly and quickly instead of panicking^[2]. However, the guidance strategies proposed in the existing studies are relatively simple, which is insufficient to reveal the characteristics of public opinion communication in the new media era. Therefore, it is necessary to further systematically propose targeted public opinion guidance strategies according to the characteristics of public opinion communication in college emergencies.

To explain the process of information transmission, Lasswell puts forward the 5W model, which includes Who, Says What, In Which Channel, To Whom, and With What Effect. The 5W model has been widely used in media, education, communication, news, books, and other fields. For example, Zhao et al. summarized the similarity between microblogs and short message news and proposed a microblog topic detection algorithm based on the 5W model^[3], which provides a basis for the emotion analysis and public opinion mining of netizens.

3 INDUCEMENT ANALYSIS OF PUBLIC OPINION IN COLLEGE EMERGENCIES

3.1 Social and management factors

China has entered a new era with rapid development in the social economy, science, and technology. The people's living standards are improving day by day, and the country has won the battle against poverty. However, some colleges and universities do not pay enough attention to the public opinion of emergencies and have an insufficient understanding of them. There is a deviation in the cognitive psychology of college students, and the ability to guide public opinion is insufficient. Due to complex external social factors and incomplete internal management factors in universities, it is easy to induce online public opinion in emergencies, which brings different degrees of public opinion crisis for universities.

3.2 Internal and external contradiction

In college emergencies, the collision of multiple values is involved. There are still contradictions and conflicts between universities' and college students' worldviews. In college emergencies, information openness is insufficient, language expression cannot be recognized by students, and internal and external contradictions are constantly superimposed, which will intensify college students' resistance to college moral guidance. It is also easy to induce online public opinion if it cannot be timely channeled.

3.3 Individual cognitive differences

Some college students hope to make their voices heard through we-media to gain social attention and recognition, some hope to express their views and attitudes towards emergencies, and some are curious and hope to explore the root causes of incidents through the Internet. Some want to

relieve their psychological pressure through the Internet to vent their negative feelings of anger. Due to the lack of information literacy in dealing with the public opinion crisis, they are vulnerable to the demagoguery and incitement of undesirable elements. Moreover, it is difficult for students to distinguish right from wrong in the mass network information of college emergencies, which increases the difficulty in the public opinion crisis management of college emergencies.

3.4 The wide application of new media

College students have a strong ability to accept new things, and browsing short videos such as TikTok has become their daily routine. However, the wide application of new media has also brought challenges and difficulties to the management of public opinion in college emergencies. Rapid information diffusion and diversified public opinion subjects lead to the rapid spread of emergency information on the Internet through different forms across time, space, and region. Internet fast food culture further weakens the cognitive ability of college students. If colleges and universities cannot quickly and effectively guide emergencies through new media technology, they will easily fall into a public opinion crisis.

4 INFLUENCING FACTORS OF COMMUNICATION BEHAVIOR

4.1 Characteristics of public opinion

Compared with the one-way communication of traditional media, online public opinion under the background of new media is a two-way interactive communication mode. Public opinion is the internal psychological activity of the public subject. Due to the virtuality of the network, people no longer have too many concerns as they do in daily life. If the network's public opinion is not effectively monitored, especially in the crisis of university emergencies, unexpected events may occur in reality, leading to various secondary public opinion crises.

At the same time, the media is not only the bearer of objective risk information but also the definer of risk. Some new media distort the truth of emergencies to attract public attention. Due to the characteristics of stable online time, close correlation, and active thinking but the weak cognitive ability of college students, coupled with the extensive application of new media, it is more likely to appear in the college emergency public opinion superposition, fermentation and spread, rapid diffusion, diverse channels, mixed content, and other characteristics.

4.2 Identification of the influencing factors on communication behavior

In college emergencies, with the wide application and promotion of all kinds of new media, public opinion spreads rapidly and widely. In the era of we-media where everyone is a microphone, if it cannot be controlled in time, public opinion cannot be guided effectively. It will affect the mental health of college students, the daily operation of colleges and universities, and the security and stability of society.

With the rampant spread of the Internet, there will be complicated information content, which is difficult to distinguish between true and false. The process of public opinion spreading on various new media platforms further intensifies college students' doubts about management and

seriously damages the reputation of colleges and universities. Timely and effective guidance of public opinion is the key for colleges and universities to successfully cope with emergency crises, which also poses a challenge to the emergency management of public opinion crises in colleges and universities.

Based on the 5W model, this paper built the framework, as shown in Figure 1.

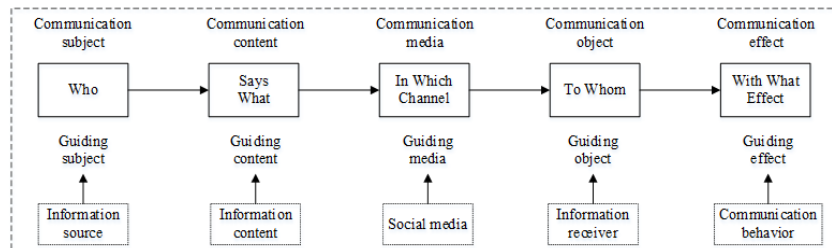


Figure 1: The framework influencing public opinion communication behavior

According to the 5W model, the subject, content, media, and object of communication affect the public opinion communication effect of college students on college emergencies. This paper selects 5 experts to form an expert group. After two rounds of the Delphi survey, five experts integrated four dimensions and reached a consensus on 13 criteria. The expert consistency test coefficients were all less than 0.1, and a formal research framework was obtained, as shown in Table 1.

Table 1: The research framework of influencing the public opinion communication effect in college emergencies

Aspect	Criterion	Definition
Communication subject	Credibility (A ₁)	The degree that the communication subject is recognized as credible.
	Influence (A ₂)	The degree that the communication subject is liked.
	Activeness (A ₃)	The extent that communication subjects are active.
Communication content	Timeliness (B ₁)	The timeliness of communication content on social media platforms.
	Richness (B ₂)	The extent that the content contains URLs, @, and #.
	Emotionality (B ₃)	The extent to which the content contained emotional descriptions.
Communication media	Usability (C ₁)	The degree that the user perceives the medium to be convenient.
	Dependability (C ₂)	The degree that the user perceives the media is reliable.
	Accessibility (C ₃)	The degree that users perceive that the medium is accessible.

	Believability (C ₄)	The degree that users perceive that the medium is safe and trustworthy.
Communication object	Perceived usefulness(D ₁)	The extent to which the audience perceives the usefulness.
	Perceived pleasure(D ₂)	The extent to which the audience perceives pleasure.
	Perceived risk(D ₃)	The extent to which the audience perceives risks.

4.3 D-ANP method

Traditional ANP(analytical network process) methods are limited by human cognitive ability, especially for higher-level questionnaires, and it is difficult to achieve consistency. D-ANP^[4, 5] is a multi-criteria decision method that combines DEMATEL(DECision-MAking Trial and Evaluation Laboratory) and ANP. It can effectively solve the problem that consistency is difficult to reach. Therefore, the D-ANP method is adopted in this paper to identify key influencing factors of public opinion communication in emergencies. D-ANP method directly uses the total influence matrix generated by DEMATEL as the unweighted supermatrix of ANP, to avoid the consistency test of the pair comparison matrix.

The steps of D-ANP are as follows: First, a direct influence relationship matrix Z is generated by the questionnaire and then normalized. Second, the direct influence matrix Z is normalized and substituted into the formula $T=X(I-X)^{-1}$ to obtain the total influence matrix T . Third, calculate the result of $D+R$ and $D-R$. Here, the sum of row elements is set as D , and the sum of column elements is set as R . $D+R$ is defined as the importance degree, and $D-R$ is the correlation degree. Fourth, the total impact matrix T was viewed as an unweighted and was used to normalize the total influence matrix to obtain the weighted matrix W for ANP, and was multiplied by itself several times until convergence to obtain the limiting supermatrix. Fifth, combining DEMATEL and ANP methods, and, the overall ranking of each factor is obtained by using Borda's rule^[6].

4.4 Identify key influencing factors

DEMATEL can determine the interrelationship of each element in the system through the causal diagram, and then identify the fundamental influencing factor from the numerous influencing factors. Therefore, in this paper, DEMATEL is used to clarify the causal relationship among various factors and criteria that affect college students' public opinion communication in emergencies.

To facilitate the interviewees' thinking, the paper adopts a simple three-point scale of 0 to 2 (0 means no influence, 1 means slightly influence, and 2 means relatively influence). Respondents are asked to fill in the answers. The respondents selected in this paper are all relatively active college students with more than 2 years of social media experience. A total of 60 questionnaires were sent out, and 57 were recovered, among which 3 were not submitted because the comparison matrix was not completed. Among the 57 questionnaires, 5 were unqualified, some filled in numbers on the diagonal of the comparison criteria, and some filled in the same value, so they were deleted, and finally, 52 valid questionnaires were obtained. After sorting out the answer results, the initial direct influence relation matrix X is obtained, as shown in Table 2.

Table 2: Initial direct influence matrix X

Criteria	A ₁	A ₂	A ₃	B ₁	B ₂	B ₃	C ₁	C ₂	C ₃	C ₄	D ₁	D ₂	D ₃
A ₁	0.000	1.925	1.950	1.000	1.000	0.275	0.325	1.000	0.975	1.000	1.825	1.000	1.975
A ₂	1.950	0.000	1.950	2.000	1.900	0.175	0.150	0.975	1.025	0.975	1.675	1.925	0.050
A ₃	1.950	1.975	0.000	1.925	1.900	0.200	0.075	0.100	0.975	1.025	1.775	1.825	0.050
B ₁	1.950	1.950	2.000	0.000	1.950	0.025	0.150	0.175	0.200	0.175	1.675	1.825	0.050
B ₂	1.025	1.925	1.925	1.975	0.000	1.975	0.125	0.125	0.200	1.050	1.800	1.000	1.000
B ₃	1.000	0.975	0.050	1.000	2.000	0.000	0.075	0.975	0.050	1.025	1.725	1.925	1.000
C ₁	0.125	1.875	0.150	1.950	1.000	1.000	0.000	0.025	1.025	1.025	1.000	1.950	0.075
C ₂	1.900	0.975	1.025	0.150	1.000	0.100	1.000	0.000	1.000	1.025	1.025	1.900	0.025
C ₃	1.875	1.050	1.850	1.825	1.000	0.050	1.000	1.975	0.000	1.975	1.875	1.850	1.000
C ₄	1.975	1.000	1.875	0.175	1.025	1.025	0.050	2.000	1.000	0.000	1.000	1.900	0.025
D ₁	1.025	0.975	1.800	1.875	1.000	1.950	1.025	1.925	0.975	1.000	0.000	1.000	0.975
D ₂	1.900	1.800	1.000	1.775	1.800	1.800	1.925	1.000	1.000	1.000	1.025	0.000	0.025
D ₃	1.950	1.800	1.000	0.975	0.075	1.025	0.050	1.000	0.975	0.975	1.000	1.000	0.000

And then, we can get the total influence matrix T from regularizing the initial direct influence matrix, which can be seen in table 3.

Table 3: Total influence matrix T

Criteria	A ₁	A ₂	A ₃	B ₁	B ₂	B ₃	C ₁	C ₂	C ₃	C ₄	D ₁	D ₂	D ₃
A ₁	0.215 8	0.298 7	0.296 8	0.243 2	0.232 7	0.126 0.126	0.087 7	0.177 6	0.158 9	0.184 3	0.286 6	0.254 5	0.170 8
A ₂	0.317 7	0.218 8	0.310 5	0.301 3	0.29 0.29	0.128 6	0.086 2	0.178 3	0.163 1	0.187 8	0.292 2	0.306 8	0.084 2
A ₃	0.305 6	0.301 9	0.208 0.208	0.289 5	0.280 4	0.125 1	0.077 2	0.132 1	0.154 4	0.182 6	0.286 7	0.290 2	0.081 3
B ₁	0.280 7	0.280 2	0.279 4	0.178 6	0.263 0.263	0.105 3	0.072 5	0.116 8	0.106 6	0.127 3	0.260 3	0.266 3	0.072 1
B ₂	0.259 8	0.295 2	0.289 8	0.286 1	0.188 1	0.206 7	0.073 0.073	0.130 3	0.114 1	0.180 4	0.284 8	0.252 2	0.123 7
B ₃	0.224 5	0.218 9	0.171 5	0.208 1	0.250 2	0.102 2	0.066 9	0.154 5	0.091 8	0.160 7	0.247 1	0.260 3	0.114 0.114
C ₁	0.178 2	0.255 6	0.170 9	0.253 4	0.204 9	0.142 4	0.060 3	0.104 0.104	0.134 8	0.157 1	0.209 5	0.262 1	0.061 0.061
C ₂	0.260 5	0.214 6	0.212 1	0.165 9	0.198 4	0.098 4	0.112 7	0.103 0.103	0.139 4	0.161 1	0.209 9	0.256 8	0.064 5
C ₃	0.346 2	0.298 6	0.331 0.331	0.314 7	0.269 8	0.137 0.137	0.139 0.139	0.248 4	0.132 1	0.255 7	0.325 8	0.336 1	0.137 1
C ₄	0.293 2	0.238 8	0.275 1	0.186 5	0.224 4	0.153 2	0.074 9	0.216 0.216	0.151 4	0.126 7	0.234 3	0.282 7	0.074 2
D ₁	0.273 9	0.264 7	0.292 8	0.29 0.29	0.247 5	0.209 5	0.125 7	0.223 7	0.160 1	0.190 3	0.209 6	0.270 2	0.126 0.126
D ₂	0.318 7	0.314 5	0.267 5	0.300 1	0.295 5	0.210 5	0.171 6	0.183 8	0.165 4	0.196 6	0.272 0.272	0.229 5	0.087 1
D ₃	0.275 2	0.258 0.258	0.219 2	0.206 7	0.161 9	0.139 2	0.063 9	0.159 7	0.140 7	0.161 6	0.217 2	0.222 9	0.065 4

In the total influence matrix T, The importance (D+R) and correlation (D-R) of each factor are shown in Table 4.

Table 4: Importance degree and correlation degree matrix

Criteria	D	R	D+R	D-R	RANK
A ₁	2.7336	3.5498	6.2834	-0.8162	3
A ₂	2.8654	3.4586	6.3240	-0.5931	2
A ₃	2.7151	3.3245	6.0396	-0.6095	5
B ₁	2.4094	3.2241	5.6335	-0.8147	7
B ₂	2.6843	3.1067	5.7910	-0.4224	6
B ₃	2.2708	1.8842	4.1550	0.3866	11
C ₁	2.1942	1.2116	3.4058	0.9826	13
C ₂	2.1972	2.1282	4.3254	0.0690	10
C ₃	3.2714	1.8128	5.0841	1.4586	8
C ₄	2.5313	2.2721	4.8034	0.2591	9
D ₁	2.8840	3.3361	6.2201	-0.4521	4
D ₂	3.0131	3.4904	6.5035	-0.4774	1
D ₃	2.2915	1.2621	3.5536	1.0294	12

The higher D+R is, the higher the importance of the criterion is. D-R is defined as the correlation degree. If it is a positive value, it indicates that the criterion belongs to the active influencer. The larger the value, the higher the degree of direct influence on other factors. However, if the correlation degree of the criterion is negative, it indicates that the criterion belongs to the affected one, and the larger the value, the greater the degree of influence by other factors. The total influence matrix T obtained above is normalized to obtain the weighted supermatrix, and the ultimate limit supermatrix is derived from the weighted supermatrix, as shown in Table 5.

Table 5: Limit supermatrix

W	A ₁	A ₂	A ₃	B ₁	B ₂	B ₃	C ₁	C ₂	C ₃	C ₄	D ₁	D ₂	D ₃
A ₁	0.08 35	0.082 2	0.082 2	0.082 2	0.081 4	0.082 4	0.081 8	0.082 9	0.082 9	0.082 6	0.081 9	0.082 3	0.080 1
A ₂	0.08 28	0.083 3	0.083 2	0.082 7	0.082 7	0.083 2	0.083 7	0.082 6	0.082 4	0.082 7	0.082 9	0.082 5	0.083 7
A ₃	0.07 81	0.078 0.078	0.079 5	0.078 3	0.078 1	0.078 8	0.078 7	0.078 9	0.077 7	0.078 0.078	0.078 3	0.077 8	0.079 4
B ₁	0.06 81	0.068 5	0.068 7	0.069 6	0.068 5	0.069 5	0.068 6	0.068 1	0.068 7	0.068 6	0.068 6	0.067 8	0.069 5
B ₂	0.07 89	0.078 2	0.078 0.078	0.078 0.078	0.079 2	0.077 7	0.077 0.077	0.079 1	0.078 3	0.077 9	0.078 5	0.078 5	0.078 3
B ₃	0.06 67	0.066 5	0.066 9	0.066 0.066	0.065 5	0.068 0.068	0.066 8	0.066 5	0.066 9	0.066 0.066	0.065 9	0.065 8	0.065 9
C ₁	0.06 43	0.063 4	0.064 4	0.063 8	0.064 6	0.063 8	0.064 5	0.064 6	0.062 8	0.063 6	0.064 1	0.063 8	0.063 9
C ₂	0.06 45	0.065 5	0.065 1	0.066 1	0.065 2	0.066 0.066	0.065 6	0.065 7	0.065 5	0.065 6	0.065 2	0.065 2	0.065 6

C ₃	0.09	0.096	0.095	0.095	0.095	0.096	0.096	0.095	0.097	0.095	0.095	0.096	0.094
	62	6	9	5	8	8		4	7	5	5	3	1
C ₄	0.07	0.073	0.073	0.074	0.074	0.073	0.075	0.073	0.073	0.074	0.074	0.073	0.075
	39	8	5	1	1	1	9	4	9	8	1	8	
D ₁	0.08	0.087	0.085	0.086	0.087	0.085	0.086	0.085	0.086	0.087	0.087	0.087	0.086
	71	2	9	4	1	6		9	7	2	4	7	
D ₂	0.08	0.090	0.089	0.090	0.090	0.089	0.087	0.089	0.089	0.090	0.090	0.091	0.090
	89	3	5	7	5	7	9	1	6	4	6	4	7
D ₃	0.06	0.066	0.067	0.066	0.067	0.065	0.067	0.067	0.066	0.067	0.067	0.067	0.067
	7	3	2	5	4	5	6	6	8		1	1	8

Table 6 is obtained according to the ascending ranking of each factor.

Table 6: The overall ranking of influencing factors

Criteria	DEMATEL	ANP	BORDA	OVERALL RANKING
A ₁	3	5	8	4
A ₂	2	4	6	2
A ₃	5	6	11	6
B ₁	7	9	16	8
B ₂	6	7	13	7
B ₃	11	11	22	10
C ₁	13	13	26	13
C ₂	10	12	22	10
C ₃	8	1	9	5
C ₄	9	8	17	9
D ₁	4	3	7	3
D ₂	1	2	3	1
D ₃	12	10	22	10

After discussing the above-ranking results with experts, the top five factors are defined as the key influencing factors of public opinion dissemination in emergencies, which are credibility (A1), Influence (A2), accessibility (C3), perceived usefulness (D1) and perceived pleasure (D2).

5 DISCUSSION AND CONCLUSION

5.1 Discussion

The severity and abruptness of emergencies put forward higher requirements for university emergency management, so it is necessary to put forward perfect public opinion guidance strategies from the perspective of the 5W model.

(1) Public opinion guidance strategies for college emergencies based on communication subjects

According to the results in Table 6, it can be seen that the credibility and influence of the communication subject are the key factors affecting online public opinion communication. We can start from the perspective of guiding subjects of different information sources, and conduct accurate guidance of public opinions through the analysis of "who" to guide in college emergencies.

It is necessary to disclose the true information of the event from multiple angles, and channels and continuously at the first time to express the attitude, avoid delay, ambiguity, deliberate concealment, etc. We should pay attention to the objectivity of information release, guide college students to have a positive cognition, and avoid posting emotional posts.

College students should take the initiative to improve their own media literacy, prudently disseminate public opinion information in college emergencies, transmit positive social energy, timely follow up on the progress of events, try to make up for the information absence of official media, and guide the benign dissemination of public opinion.

(2) Public opinion guidance strategies for college emergencies based on communication content

Effective guidance of public opinion can be conducted from the perspective of information contents. First of all, in college emergencies, the information content that most students know is second or even third-hand data obtained from network media or other students. Therefore, to ensure the timeliness of information, information related to emergencies should be released as soon as possible. Secondly, attention should be paid to the richness of information content. Guiding subjects such as official Weibo and official media can present information from different perspectives through pre-designed information content so that college students can have a more comprehensive and objective cognition of emergencies. In addition, we should pay attention not to release information content with negative emotions, to avoid emotional contagion and bring negative emotions to the senses, thoughts, and emotions of college students. Through the dissemination of positive emotions, college students should have a positive psychological response, to effectively guide public opinion to spread in the right direction.

(3) Public opinion guidance strategies for college emergencies based on communication media

The use of new media can open up new communication channels. However, due to the imbalance of regional development, new media is not a panacea, nor should it be regarded as a substitute for traditional communication modes. From the perspective of media, it is necessary to reasonably analyze the communication effects of different communication channels, such as traditional media and new media, to ensure the accessibility of network users in different regions to the media, and to effectively guide the communication of public opinion in university emergencies. In the guidance of public opinion in college emergencies, the use of new media such as Weibo, WeChat, and Tiktok should be strengthened, and authoritative traditional media should be adopted at the same time to ensure the accessibility of the network and reachability of the information.

(4) Public opinion guidance strategies for college emergencies based on communication objects

In the context of college emergencies, college students with different characteristics may be stimulated to produce different useful and pleasurable perceptions when stimulated by a crisis. Therefore, from the perspective of the communication object, based on the situational

characteristics induced by emergencies, college students can be taken as the public opinion guidance object.

It is necessary to promote the rational cognition of users in the guidance process, strengthen their perception of usefulness and pleasure, and enhance rational communication of online public opinions. For college students who are affected or feel the high degree of correlation between emergencies and themselves, more guidance should be given to their emotions, and more positive emotional descriptions should be adopted to guide them to have stronger positive emotional resonance, and to effectively promote the dissemination of positive public opinions. More attention should be paid to the guidance of their psychological cognition. In the guidance process, the psychological characteristics of such users should be taken into account, and successful cases of emergency management should be released to them in time, to promote more positive emotions, weaken the influence of negative emotions and promote the dissemination of positive energy.

(5) Public opinion guidance strategies for college emergencies based on communication effect

No matter in the network space or the real space, the gathering of negative emotions, the breeding of network rumors, the spread of false information, etc., will lead to a negative online public opinion of university emergencies, which will bring serious adverse impact on teachers, students, and even the society. From the perspective of the communication effect, targeted public opinion guidance strategies can be proposed by analyzing the communication behaviors of students in college emergencies.

Emergency management departments and official media should make full use of big data technology, timely grasp the information needs and ideological dynamics of college students, and timely eliminate information uncertainty. It is necessary to pay attention to the ideological dynamics of students, eliminate the uncertainty of information in time, classify students according to different characteristics of students, and try to use new media technology in the guidance to achieve spiritual resonance with college students. Through the full cooperation of college teachers and counselors, the synergistic guidance effect can be effectively achieved and the ability of colleges and universities to cope with emergencies and crises can be improved.

5.2 Conclusion

College emergencies have brought varying degrees of impact on the physical and mental health of students and teachers, the reputation and daily operation of colleges and universities, as well as social security and stability. This paper first analyzes the causes of public opinion in college emergencies, the characteristics of communication under the background of new media, and the adverse effects of public opinion communication. Then, based on the 5W model, the research framework for influencing online public opinion communication in college emergencies is constructed, and the D-ANP method is used to identify the key influencing factors. Finally, from the subject, content, media, object, and effect of communication, the public opinion guidance strategy is put forward. In theory, our research extends the 5W model to the emergency management of college emergencies and enriches the application field of the 5W model. In practice, it provides accurate public opinion guidance strategies for universities and relevant emergency management departments, which is helpful to improve the emergency management ability of universities. This paper also has certain limitations. This paper is still exploratory research, and the next step can be based on typical university emergency cases and empirical

research through data mining technology, to further improve the effectiveness of the research results.

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REFERENCES

- [1] Lasswell H. D. The Structure and Function of Communication in Society[J]. İletişim Kuram Ve Araştırma Dergisi, 2007, (24):215-228
- [2] Sousa B. School emergencies--preparation not panic[J]. THE JOURNAL OF SCHOOL HEALTH, 1982, 52 (7):437-440
- [3] Zhao Z., Jia Y., Lan Yao, et al. 5WTAG: Detecting the Topics of Chinese Microblogs Based on 5W Model[J]. 2013:237-242
- [4] Lu Y., Jin C., Qiu J., et al. Using a Hybrid Multiple-Criteria Decision-Making Technique to Identify Key Factors Influencing Microblog Users' Diffusion Behaviors in Emergencies: Evidence from Generations Born after 2000[J]. Symmetry, 2019, 11 (265):1-17
- [5] Hu Y., Chiu Y., Hsu C., et al. Identifying Key Factors for Introducing GPS-Based Fleet Management Systems to the Logistics Industry[J]. Mathematical Problems in Engineering, 2015, 2015:1-14
- [6] Truchon M. Borda and the Maximum Likelihood Approach to Vote Aggregation[J]. Mathematical Social Sciences, 2008, 55 (1):96-102