



Research of Online Discussion Among College Students in Xi'an China in the Context of COVID-19

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Abstract. Following the outbreak of the COVID-19, Xi'an, China, experienced several closure control administrations. Communities, streets and universities would adopt different closure management policies during the same period. In this context, the author conducted a series of studies on university students living under closed administration in Xi'an universities in an attempt to explore whether Xi'an university students' attention to social news changed after the epidemic closure and control. Questionnaires were distributed on the Internet and on campus. A quantitative research approach was used to process and analyse the data. The results of the data analysis show that closed campus management has a significant impact on university students' willingness and behaviour in online discussions. In particular, the more they engage in discussions on the internet during the closure period, the more they will also engage in social news after the closure is lifted. As a school, it is also recommended to open up immediate communication channels during the subsequent possible blocking period to ease the conflict between the school and students, build credibility, and guide and cultivate students' attention and correct perception of social news.

Keywords: COVID-19 · China · College student · Online discussion

1 Introduction

After the outbreak of COVID-19 from Wuhan in December 2019, China, together with the world, was plunged into an era of fighting the epidemic that lasted more than two years. Due to the powerful spread of the virus and the lack of timely government response, the city of Wuhan in Hubei initiated a city closure in early 2020. Other cities in Hubei Province also took the initiative to suspend public transport within the city limits. During the same period, confirmed cases were reported in 31 provincial-level administrative regions in China, and several places activated their highest-level responses to public health incidents. After 76 days, Wuhan City lifted the control measures on the passage out of Han and out of Hubei, and China was able to contain the spread of the outbreak in a phased manner. A brief period of peace was achieved in China, but in June of the same year, a new outbreak of COVID-19 broke out in Beijing and the government took a short-lived containment measure to quell the outbreak. Since then, several cities

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have opted for substantial closures or varying degrees of containment to achieve zero infections due to the outbreak.

The outbreak in Xi'an has been relatively stable, except for the initial national closure and control policy for the COVID-19 outbreak. Due to the lengthening chain of transmission of the Chang'an University cases, Xi'an declared a city-wide closure on the afternoon of 22nd December 2021 from 23rd January. On 23rd January, after 32 days, the risk level of the city-wide outbreak in Xi'an was adjusted to low risk and the closure control was lifted. From 9th to 17th December, starting with one confirmed case, the number of confirmed cases remained in the single digits each day, while from 18th to 24th December, a period spanning 2 days before and after the closure of the city, the number of confirmed cases rose to double digits. The number of confirmed cases was in the triple digits each day, reaching a peak of 175 cases. From 2nd January 2022, after several rounds of full nucleic acid testing, the number of confirmed cases returned to double digits again until the closure was lifted on the 23rd.

Many people learned of the re-emergence of the epidemic in Xi'an from the afternoon of 22 December, when a full closure of the city was announced for 00:00 on the 23rd. However, there was one confirmed case as early as December 9th. On December 16, the government announced five new medium-risk areas in Xi'an, confirming three major chains of transmission. One of the confirmed cases had travelled to several large shopping centres and caused intense debate. One of the transmission chains came from a campus of Chang'an University, which was used as an opportunity to create a more sustained wave of discussion among the university student community on the internet.

Back in the same period of the Wuhan closure, universities in Xi'an were notified to fully launch online teaching in the spring 2020 semester for one semester. During the quarantine period, universities intermittently carried out different campus-based closure and control management degrees. Online education has effectively maintained the daily work life of college teachers and students during the period of a serious epidemic. And for the majority of non-infected teachers and students, almost no interruption of the campus closed management undoubtedly brought great inconvenience. It also deepens the students' sense of the impact of the epidemic on their lives. The separation of teachers and students, the non-daily learning environment, the irregular pace of teaching, the unpredictability of personal life beyond one's control, the situation of study and employment etc., has caused the university student community regarding the social event and the news report attention. As a result, the current university and postgraduate student population are faced with the dilemma of being under quarantine and restricted in their freedom of movement at any time. The pressure of academic work and the uncontrollable factors brought about by the COVID-19 epidemic caused a surge in psychological stress and more pronounced mood changes than usual. During the period of full closure from 22nd December 2021 to January 2022, the emergence of the epidemic coincided with the final examinations of university-level education, and a considerable amount of questioning and discontent about the closure measures, mainly from university students' groups, appeared on the internet.

2 Literature Review

Many studies have discussed educational issues and the mental health of university students. Gan examined the mental health of some Chinese university students in the context of normalised epidemic preparedness. In particular, both social support and its support utilization had a significant impact on students' psychological resilience, which is the main control for students' anxiety. Students can cope with the epidemic and cope with the epidemic [1]. In other words, the ability of students to repair themselves during and after an epidemic is closely related to the social support they receive.

Da, Zhao, Feng and Zhang studied the effect of endogenous health beliefs on depression and anxiety in the public during an epidemic. They showed that the higher people's involvement in health-protective behaviours was effective in reducing their depression and anxiety levels [2]. For university students, on the other hand, it is difficult to receive appropriate protective support promptly in the early stages of a closed administration. Even if the school is adequately prepared for COVID-19, there is still a certain vacuum of medical support for the rest of the health problems. Therefore, the initial period of closure is the most negative for the student population. Huang and Wang described the impact of a blended approach to teaching and learning in colleges and universities in the context of an epidemic on university students' engagement in learning [3]. Students' learning experience declined during the school closure period and their level of engagement in learning was significantly lower than usual under the blended mode of teaching.

Major emergencies make the public feel a considerable degree of threat to security. Many researchers have paid attention to the serious threat to people's physical and mental health and the large-scale loss of public security caused by the epidemic of COVID-19 as a major public health emergency. Li and Wang analyzed the factors that can affect the public's sense of security and the differences in their influence. And through the construction of a public security impact model, to explore how the factors affect the public security of the various structural elements [4]. Their study provides a reference for various groups to work together to maintain the stability of public psychology under the COVID-19 epidemic situation.

In the post-epidemic era, people need to carry out effective screening to find the correct and useful information. Wang Xin's research focused on the mechanism of refuting rumours on the platform of "people prefer truth". Through the analysis of the type, quantity and integrity of rumour-refuting information, this paper shows a relatively complete operation path of the Internet rumour-refuting mechanism [5]. According to the study, platforms are slow to dispel rumours and have a certain lag. Therefore, Internet information still has a considerable negative impact on university students who need to instantly gather information related to various outbreaks. This effect has been discussed in other studies. Hu, Wei, Wang and Yuan analysed the association between information overload and unintentional disinformation behaviour among Chinese university students during the COVID-19 epidemic when the online community served as an effective gateway to help while being adulterated with unsubstantiated or unsubstantiated information. Without personal access to the sources of information, university students were susceptible to rumours, creating biases in their way of thinking and value judgments. Using statistical

analysis, the researchers concluded that university students are more emotionally influenced by negative messages and have a lower incidence of unconscious involvement in rumour-mongering behaviour [6]. The identity of university students is unique in that this group has a high quality of information, but may also act irrationally due to emotional factors when their interests are at stake. In particular, under the COVID-19 epidemic, the university students' group has been in a single closed environment for a long time, and their resistance to negative emotions is more likely to be reduced, thus being driven by emotions to participate in Internet. The COVID-19 epidemic, in particular, has made it easier for university students to resist negative emotions and become emotionally driven to participate in Internet discussions.

Shan Qiao, Daniela B. Friedman, Cheuk Chi Tam, Chengbo Zeng, and Xiaoming Li found how high the impact of information sources on information credibility for university students [7]. The findings underscore how important it is for people to have trust in the government, and health care system in the COVID-19 era. At the same time, Hua Pang suggests that mobile apps have been beneficial to online political discussions in recent years. Mobile apps, a relatively new channel for political information, have facilitated Chinese university students' participation in discussions about government and politics. And in the COVID-19 era, Chinese university students' need for information and recognition has grown significantly, and their internal level of political efficacy is trending positively [8]. Based on this, it is reasonable to believe that the secondary issues created by COVID-19 will have a significant impact on university students' online political discussion activities. Wei Shaohua focuses on the function of "topics" in Chinese social media to build online communities. People from different communities communicate in a relatively diverse and loose manner through topic platforms in online communities [9]. The "subjectivity" of users formed a dimension of public attention to different information, and during the period of closed control in Xi'an universities, university students spontaneously formed online communities that bridged the gap between different universities as much as possible. In this way, the controlled information dissemination channels were returned to a pluralistic and dialogical communication. While they have been able to save themselves to a certain extent, they may also have created new disturbances in the perception of this group.

Sun, Wu and Yang explored the academic and life of Chinese university students during the COVID-19 epidemic through an international comparative approach [10]. Although the study showed that Chinese university students were more satisfied with their online education during the epidemic than the global average and experienced relatively low levels of negativity, a high number of students still did not adapt to a closed life, especially at the beginning of the closed administration. More scholars have focused on the psychological conditions of university students in the era of the epidemic. However, less attention has been paid to the expression of university students' opinions in public discussions during this period. Because of the chaotic government management and unreasonable university closure at the beginning of the outbreak, university students gradually lost their trust in the information released by the official authorities and the university management system. University students have taken to public platforms to express their emotions through their means in the hope of reaching their demands through public confrontation. In this process, it will be the focus of this study whether the means

and choices of the university students' groups have effectively achieved their original purpose and whether this experience of expression has contributed to the attention and participation of the university students' groups in social events and public discussions.

3 Methodology

The survey was conducted from 10 May 2022 to 17 May 2022, using a self-administered questionnaire on the Questionnaire Star platform, and was conducted anonymously online among students enrolled in several universities in Xi'an. The questionnaires were collected through both on-campus distribution and self-completion via WeChat distribution. The questionnaire distribution cycle took approximately one week. Ninety-four questionnaires were received, of which 56 were valid after removing incorrect address information and invalid questionnaires with all extreme or all intermediate options. Seven (12.50%) were male and 49 (87.50%) were female. The information collected was analysed by SPSS 2.0 software.

The questionnaire set up a scale of questions on the impact of the school closure context on the lives of university students. Three dimensions were set up to discuss the extent of university students' awareness of the closure control policy, university students' concerns and use of online information, and the impact of their behaviour after being unblocked. Participants answered these questions on a five-point Likert scale (1—not at all in the situation, 2—not in the situation, 3—not sure, 4—in the situation, 5—fully in the situation). Mean scores were calculated for each dimensional entry, with higher mean scores representing more positive attitudes of participants on that dimension. Participants were asked to provide basic social information about themselves, including gender, name of the university they attended, year, political jurisdiction and subject category. Based on a Cronbach's reliability analysis of the questionnaire, the Cronbach's alpha coefficient of 0.883 (>0.8) was found to be sufficiently reliable and accurate for the study data.

4 Results

The results of the correlation analysis showed that there were significant positive correlations between the university students' concerns and discussions about online information and their perceptions and feelings about the blocking policy during the blocking period, between their behavioural impact after unblocking and their perceptions and feelings about the blocking policy, and between their behavioural impact after unblocking and their concerns and discussions about online information during the blocking period (Table 1 for details).

Based on existing research, a stratified regression was used for the three dimensions of the impact factors, focusing on the issue of the school's relationship with students' perceptions of life during the closure control period, to examine whether the use of online information had a significant inverse effect on students' perceptions of the closure control policy (Table 2). A linear regression analysis was conducted with students' perceived feelings about the closure policy as the independent variable and the use of online information as the dependent variable, and the model R-squared value = 0.387, implying that perceived feelings about the closure policy could explain 38.7% of the

Table 1. Analysis of the correlation between post-unsealing behavioural influences and perceived feelings about the closure control policy and the attention and discussion behaviour of online information

		Behavioural impact after unblocking
Perceptions of the closure control policy	Correlation coefficient	0.426**
	<i>p</i>	0.001
Attention to and discussion of online information behaviour	Correlation coefficient	0.540**
	<i>p</i>	0.000

* $p < 0.05$ ** $p < 0.01$

Table 2. An examination of the moderating effect of online discussion behaviour on students' perceptions of the closure policy during the closure period

Perception of the closure control policy	Timeliness of school information	The act of expressing opinions online	Accessibility of help	Perception of the closure control policy
R^2	0.387	0.624	0.816	0.829
R^2 adjustment	0.376	0.610	0.806	0.816
F	$F(1,54) = 34.114, p = 0.000$	$F(2,53) = 44.008, p = 0.000$	$F(3,52) = 77.072, p = 0.000$	$F(4,51) = 62.019, p = 0.000$
ΔR^2	0.387	0.237	0.192	0.013
ΔF	$F(1,54) = 34.114, p = 0.000$	$F(1,53) = 33.421, p = 0.000$	$F(1,52) = 54.444, p = 0.000$	$F(1,51) = 3.912, p = 0.053$

Dependent variable: attention to and discussion of online information.

* $p < 0.05$ ** $p < 0.01$ t-values in parentheses

variation in concerns and discussions about online information. Students' perceived feelings about the closure control policy ($F = 34.114, p < 0.05$), questioning the timeliness of the university's information ($t = 5.781, p = 0.000 < 0.01$), and discussion of the university's closure control policy ($t = 7.379, p = 0.000 < 0.01$), would have an influential relationship on their concern and discussion of online information, showing a significant positive influence relationship.

A mediating effect analysis was conducted using university students' perceptions of the closure control policy as the independent variable, changes in behaviour after unblocking as the dependent variable, and attention to online information and discussion behaviour during the closure control period as the mediating variable (Fig. 1). The results showed that students' perceptions of the closure policy were a significant positive indirect predictor of post-unsealing discussion behaviour through their participation in online

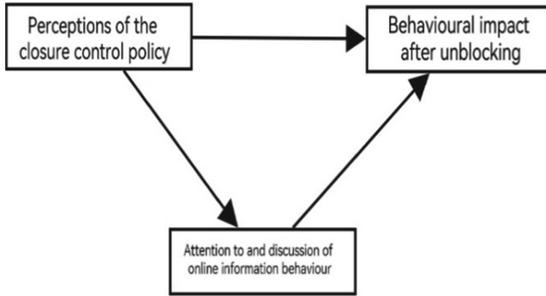


Fig. 1. A model of the influence of perceptions of blocking policies and online information use behaviour during blocking on post-blocking behaviour

Table 3. A mediating effect model of the effect of online information use behaviour during the closure control period on Perception of the closure control policy on post-unblocking behaviour

	Behavioural impact after unblocking	Attention to and discussion of online	Behavioural impact after unblocking
Constant	1.852** (3.834)	1.074** (2.861)	1.315** (2.728)
Perception of the closure control policy	0.499** (3.457)	0.654** (5.841)	0.172 (1.001)
Attention to and discussion of online			0.500** (3.067)
Sample size	56	56	56
R^2	0.181	0.387	0.305
R^2 adjustment ²	0.166	0.376	0.278
F	$F(1,54) = 11.950, p = 0.001$	$F(1,54) = 34.114, p = 0.000$	$F(2,53) = 11.607, p = 0.000$

* $p < 0.05$ ** $p < 0.01$ t-values in parentheses

discussion behaviour during the closure period, with a mediating effect value = 0.327, $p < 0.01$. A bias-corrected Bootstrap method test indicated that the partial mediating effect of attention to online information method during the closure period between perceptions of the closure policy and discussion behaviour afterwards was significant, with a 95% confidence interval of [0.029, 0.539] not including 0, meaning that attention to online information during the blocking period and discussion behaviour significantly mediated the effect of perceived blocking policy on post-blocking behaviour (Table 3).

Outside of this, 69.94% of participants had little or no objection to the university’s closure policy. However, 76.34% of the participants showed clear dissatisfaction with the school’s arrangement of the blocking period. After correlation analysis, access to online information (correlation coefficient value = 0.111, p -value 0.415 > 0.05) and perceptions of the closure policy (correlation coefficient value = 0.111, p -value 0.829 > 0.05) did

not correlate with students' acceptance of the closure policy. The management system of Chinese universities may be such that the impact of the gagging life on students is more likely to be subtle in their daily behaviour after the event is over. Chinese university students rarely talk about their dissatisfaction with a policy of an official nature in public.

5 Discussion

Firstly, the closed administration does affect the attention and discussion of social news by university students. Universities are recognised as ivory towers, so university students are equipped with all sorts of doctrines and ideas as they go through this transitional period between campus life and social work. They usually do not pay much attention to the news, especially news about the nation collectively and not closely related to themselves. The speed of the spread of the COVID-19 and its highly contagious nature leads that no one can afford to let their guard down. Large-scale, nearby outbreaks attract attention to the collective, especially to the release of official information. The communication of the well-equipped university campus provides the possibility of a closed environment, but at the same time becomes a hindrance that limits students' normal perception of the outside world. As long as there is no major epidemic or disaster on campus, it is difficult to disrupt the rhythm of students' lives. However, the social situation presented in the news is different from the situation on campus to which students are exposed. The perception of university students is thus extremely fragmented and mental stress ensues. To make sure that their family and friends are safe in places they are not exposed to, university students are pushed to increase their attention to social news.

Secondly, the trust of university students in the official government is reduced after the closed administration. The discrepancy between information from the Internet and official information, and between official policies and the actual policies implemented by the university, increases the fragmentation and suspicion of students' perception of the status quo. As a result, university students use every possible means to obtain information from multiple sources and ultimately choose the one they want to believe. The one that is believed is usually the one that leads to the worst-case scenario. Following past experiences of being blocked and controlled and the idea that it is better to be prepared, students will resort to blindly hoarding supplies, seeking help and so on. This behaviour can cause more pronounced and intense panic in closely associated groups while leading to a vicious cycle. For example, university facilities themselves are not overstocked with supplies, and the supply chain will be strained by stock-outs caused by over-shopping by students, which, combined with restricted logistical traffic for deliveries during the epidemic, creates a chaotic situation in which supermarkets and other places on university campuses are oversupplied. During the second closure of Xi'an, the lack of timely supplies led to chaos for up to ten days. Bad news from the community spread through the internet to university campuses and students' own lives were in turmoil. And the official hope to inspire people by publishing positive, upbeat news was exactly the kind of information that, in the eyes of the students, served no purpose and was more propaganda than practical. From then on, there is a corresponding scepticism towards official information.

Thirdly, the closed nature of the university exacerbates the conflict between the official school and the student body. There is no denying that bureaucratic formalism still exists in universities. According to statistics and information posted online by university student groups, there is a clear irrationality in the closure and control policies of some universities. Many policies and regulations not only disrupt the daily lives of students but are also accused of being unfair and non-essential. During closures, the only authority that the student body has access to is the university. As a result, the conflict between the school and the students shifted from the main aspects of teaching and learning activities to those of life. In an epidemic situation, the conflict between the administrative measures of school closure and the students' need for a normal life is almost irreconcilable. Chinese students are taught patience as a virtue from an early age and therefore often wish to avoid direct conflict. Even when confronted with a situation where there is a definite irrational system, they will first seek a peaceful and stable solution. And closure control blocks the connection between home and student that could otherwise be used as a conduit. The epidemic blocks contact between students and parents while preventing students from resisting unreasonable school policies in reality and turning more to the internet to document and complain. However, verbal emotional detoxification is ultimately limited, so students' negative emotions about the epidemic remained much longer than other emotions after the closure was lifted.

6 Conclusion

In this study, the phenomenon of university students engaging in public discussion on their own in the context of epidemic closure management is explored. This group itself has a strong ability to constitute online communities and contribute to the spread of topics in collective discussions with the same goal. In summary, the university student community showed a strong willingness to participate in online discussions during the epidemic closure, and, both the group itself and their demands created a high level of public discussion. The university student population is often paranoid about events due to closed information channels and a physical lack of social support. Several recent outbreaks in Xi'an have been caused by the movement of people from outside the province, and the inevitable processing of information spread among students after learning about it only through the news is more likely to lead to intense xenophobia.

The universities' unprepared implementation of the gagging policy also exacerbates the conflict between students and those who issue the policy, further leading to a decrease in the tolerance of the university community towards the government. When speaking out on public platforms about the closure policy, students are more likely to use emotive language, which can intensify the conflict between the two sides when the group is large. For this reason, the university and the government should address students' demands and communicate with them as early as possible to solve their academic problems. At the same time, universities should also cultivate and properly guide students' awareness of public participation. The majority of students are only followers of events on the internet, but after this, some of them are bound to become discussants and participants. Universities should also pay attention to regulating the way students engage in public participation.

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