

The Effect of Erratic Quarantine Lockdown Policy on Students' Stress in China

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Abstract. Two years after the initial breakout, the COVID-19 epidemic is still spreading worldwide. As the virus mutates and becomes more contagious, several epidemic outbreaks in China led to serious public health crises in 2022. The government has adopted the Zero-COVID Policy, a draconian measure aiming to lockdown cities with infected people as a means to combat the contagion. Cities are vigilant and cautious of the pandemic, implementing lockdowns whenever COVID-19 cases emerged. Learning has fundamentally changed. Schools need to comply with unpredictable lockdown policies and transition to online teaching. Students, on the other hand, need to overcome new difficulties and make adaptations to the sudden shift in teaching mode. Previous studies have indicated evidence suggesting that online study has the potential to bring anxiety and pressure. Under such erratic circumstances, the challenge of retaining study progress has been perceived as arduous by the general public, requiring students to finish all study tasks in the changing environment. Through questionnaire studies and interviews with students who underwent different policies in different regions, the main goal of the research is to investigate how stress differently affects students and trace the reasons for the tension of studying online.

Keywords: COVID-19; Lockdown; Online Learning; Stress; Students.

1. Policy Introduction

The Chinese government's Zero-COVID policy aims to control the virus from spreading. To be more specific, the policy requires provincial governments to impose strict regional lockdowns whenever cities have infected inhabitants. Subsequently, schools have to deal with unpredictable quarantine schedules. Usually, schools are asked to directly start online teaching.

The city of Xi'an underwent a 30-day lockdown from December 28th, 2021, to January 27th, 2022. On December 20th, elementary and middle schools stopped offline campus teaching.

Shanghai underwent a 90-day quarantine in early 2022. On March 12, 2022, all primary and junior high schools started online teaching, while the 3-month lockdown officially ceased on June 1st.

For Changzhou, on March 25th, 2022, the government declared to "gradually refrain from the lockdown". However, it was also stated that "Elementary schools, middle schools, high schools, and vocational schools will continue to practice online classes, while kindergartens and early education centers will continue to be closed temporarily. All institutes for higher education will observe lockdown management."

The policy brought extensive uncertainties to education. In most cases, the lockdowns only have stated beginnings. However, no announcements tell a specific date for the ending of quarantine when the lockdown begins.

Consequently, students are required to take online classes with poor or no preparation and no information about when they will come back to campus.

2. Effects of online classes

The transition to online classes brings anxiety and pressure to students. One prominent impact is on mental health. Previous studies indicated that high school students in China gave a series of negative feedback when a lockdown takes place. To be specific, it was found that the rate of anxiety, depression, and PTSD symptoms was 7.1%, 12.8%, and 16.9%, respectively. This phenomenon is not coincidental. In a study that took place in Shandong province, the prevalence of symptoms related

to depression, anxiety, and a combination of both symptoms among teenagers of 12 to 18 was 43.7%, 37.4%, and 31.3%, respectively.

Peer pressure is another potential source of anxiety. To begin with, rival students can see each other learning in campus study life, therefore they have a clear idea of others' progress. However, this is not the case for online studies. Competition intensifies as rival students do not have the source to know each other's scores and study situations.

Further, another visible tendency indicated by a survey is that teenagers presented higher rates of obesity and less time spent on sports activity when they have online classes. This phenomenon is an indicator of scarce physical activities during the quarantine study. Students present an overall unhealthy trait of being overweight.

Conclusively, the lockdown has profoundly threatened students' psychological and physical health, bringing more stress.

3. Methodology

The research is implemented using questionnaires and interview studies. The questionnaire focuses on the overall impact of the erratic quarantine on students while the interview focuses on the detailed influence of the policy.

3.1. Questionnaire

The questionnaire includes 7 questions, 6 of which are choice-only. The one question remaining is used to find out where the participant is. Choice-only questions are capacitated to vastly shorten the time required to finish, ameliorating people's interest in completing the questions.

The first and second questions ask about the age and location of participants. The third question serves as a filter for respondents. Participants will get access to subsequent questions if "I had online classes." is chosen. The fourth asks about the length of online study periods, ranging from less than two weeks to over six weeks. The fifth and sixth questions require the participants to state their general impression of pressure during online study, while the seventh question renders multiple choice on the main source of pressure during their quarantine learning.

The questionnaire is distributed online. Shanghai, Xi'an, and Changzhou account for the most participants

3.2. Interview

The interview is conducted with 5 participants who underwent quarantine in different regions. Interview questions follow the general outline of 4 questions:

1. Do you prefer online classes during quarantine to offline classes?
2. Did you have any significant bad study experiences during your COVID- 19 study? If so, can you specify that?
3. What were mainly the bad aspects of an online study that affect you the most?
4. Are you more stressed on campus or online?

4. Statistics and Analysis

4.1. Questionnaire

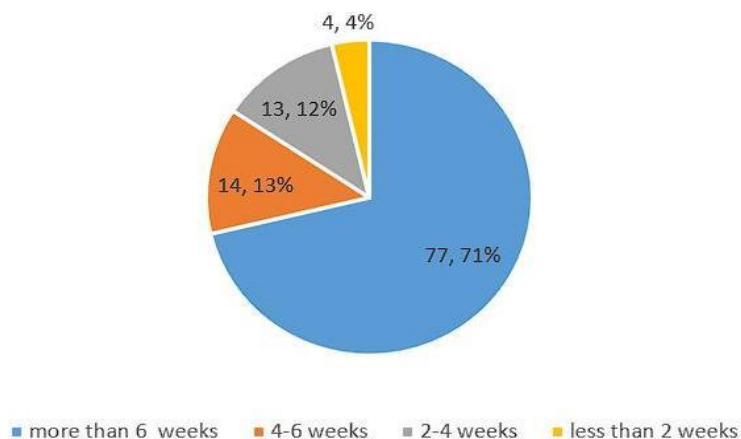


Fig. 1 Time Spent in Online Classes (Shanghai)

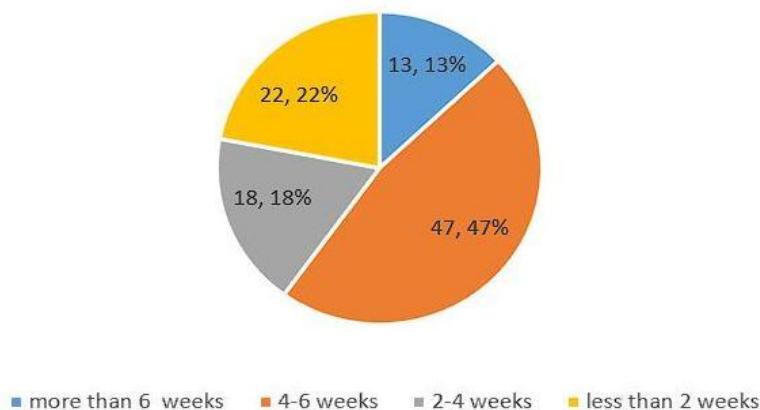


Fig. 2 Time Spent in Online Classes (Xi'an)

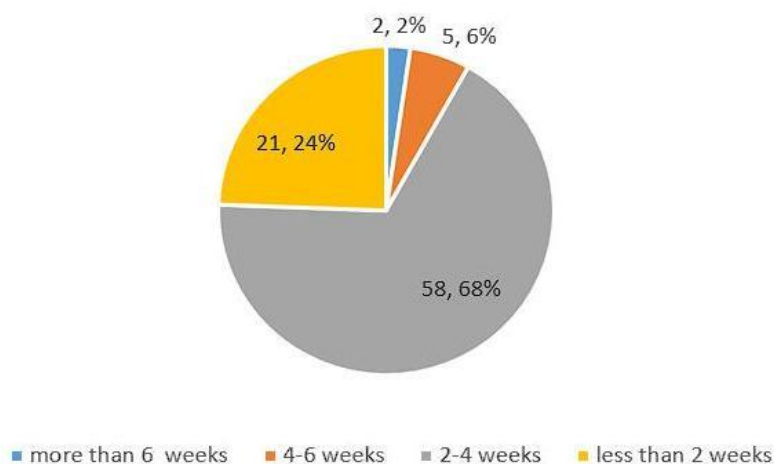


Fig. 3 Time Spent in Online Classes (Changzhou)

From Fig. 1-3, the three city residents have answered the question “How long did you have online classes during the quarantine study?” The graphs indicated that most Shanghai students studied online for more than 6 weeks, while students in Xi’an mostly had about 4-6 weeks. Students in Changzhou experienced the shortest quarantine study period of 2-4 weeks.

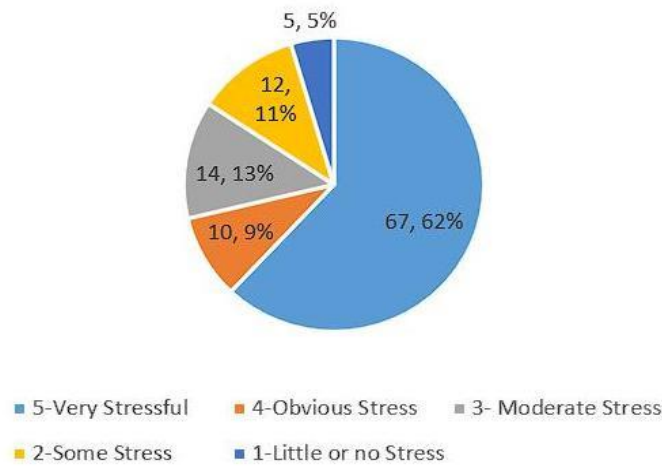


Fig. 4 Stress Level During Quarantine Study (Shanghai)

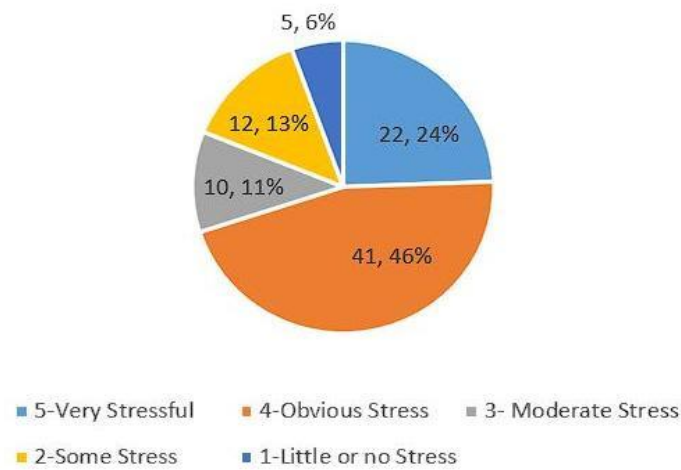


Fig. 5 Stress Level During Quarantine Study (Xi'an)

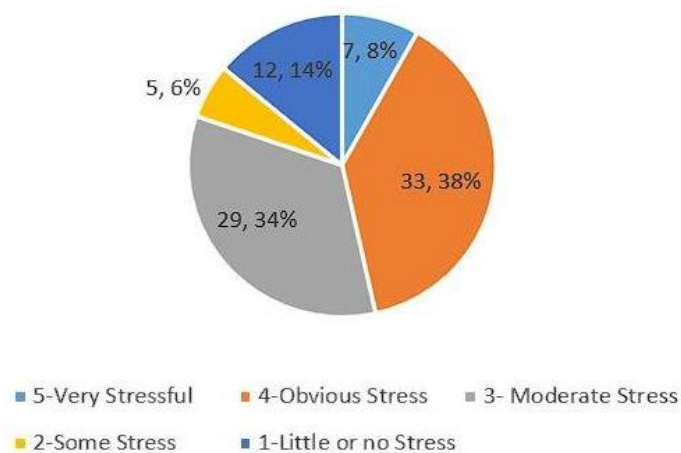


Fig. 6 Stress Level During Quarantine Study (Changzhou)

From Fig. 3-6, The stress level of students ascends as the duration of quarantine study increases. Shanghai students underwent the most stress. Xi'an students mostly reflected a stress level of 4, second to Shanghai students. Changzhou students comparably underwent the least pressure level. Approximately 72% of students chose stress levels 3 and 4.

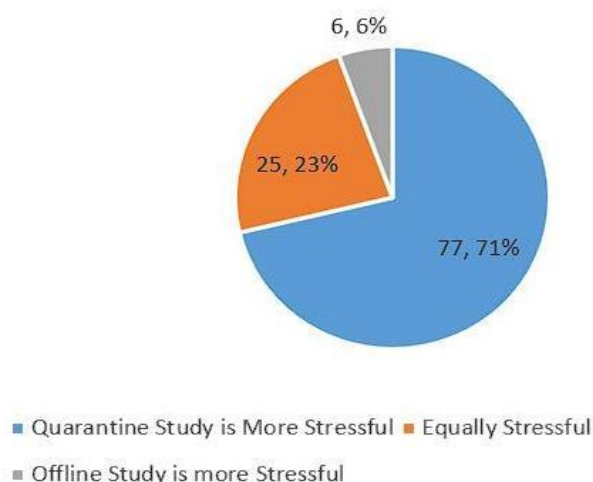


Fig. 7 Stress Level Compared to Offline Study (Shanghai)

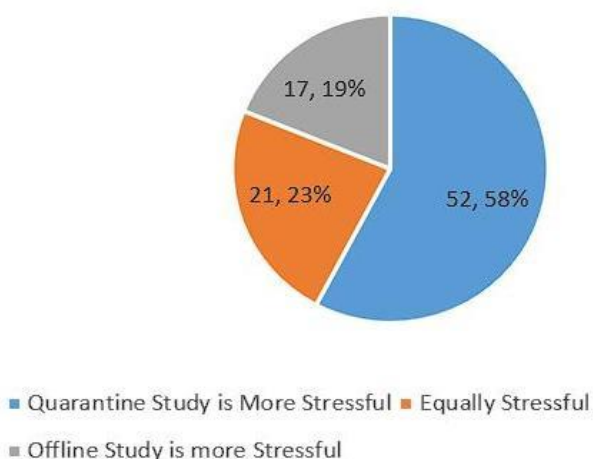


Fig. 8 Stress Level Compared to Offline Study (Xi'an)

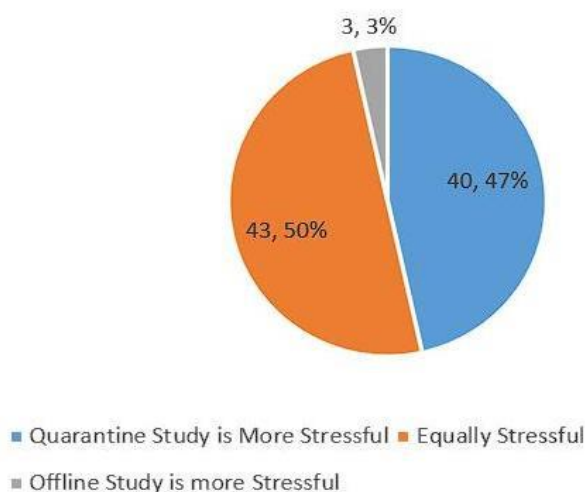


Fig. 9 Stress Level Compared to Offline Study (Changzhou)

The pattern of answers to the question “How is your stress level compared to that of offline study?” is represented in Fig. 7-9. The proportion of people considering online study as more stressful increases as quarantine duration increases. The percentage of people who consider online classes more stressful is 71%, 58 and 47% in Shanghai, Xi’an, and Changzhou respectively.

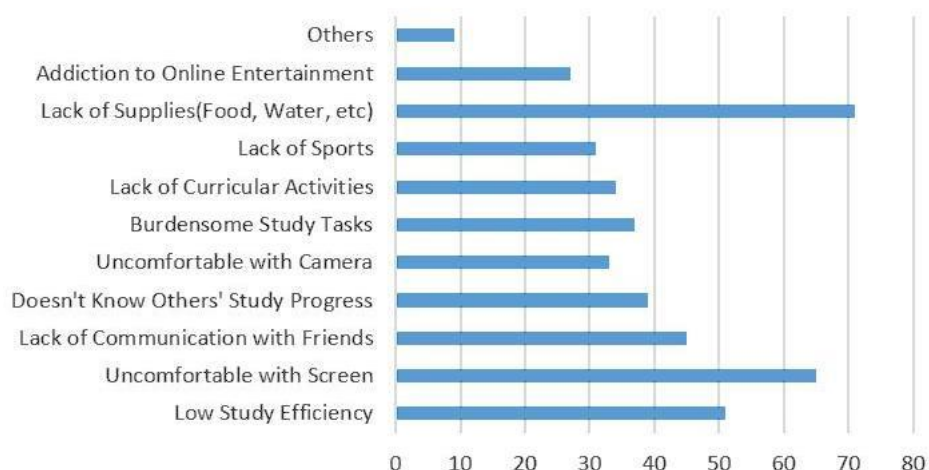


Fig. 10 Reasons for Quarantine Study Stress (Shanghai)

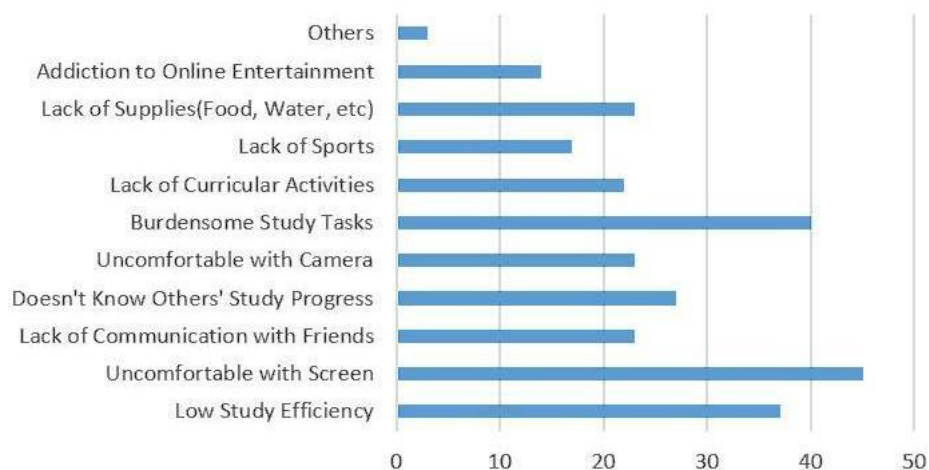


Fig. 11 Reasons for Quarantine Study Stress (Xi'an)

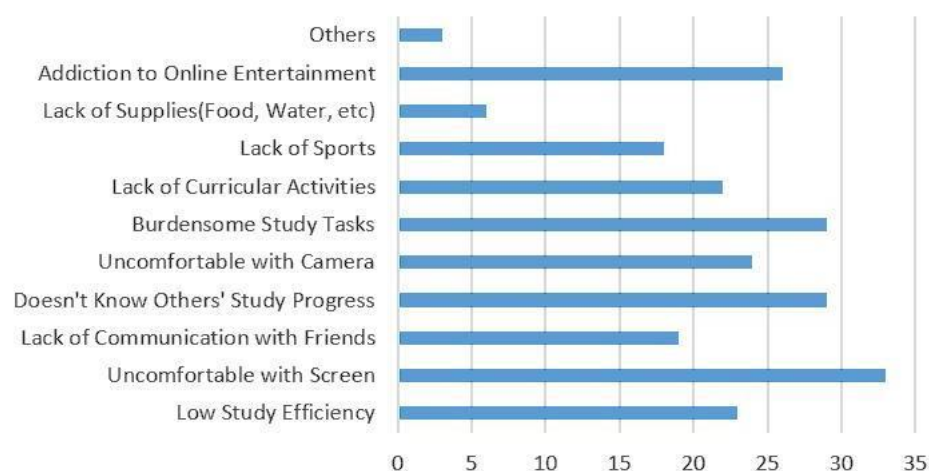


Fig. 12 Reasons for Quarantine Study Stress (Changzhou)

For Fig. 10-12, the main reasons for stress during quarantine study are shown. The total number of participants is 108, 90, and 86 respectively for Shanghai, Xi'an, and Changzhou. However, people under long quarantines gave more participation to this question. Students from all cities indicated that being “Uncomfortable with Screen,” “Burdensome Study Tasks” and “Low Study Efficiency” are major factors of stress. Other factors’ priority varies from city to city. People in Shanghai particularly stated that lack of life supplies is a significant component of stress.

4.2. Interview

Table 1. Basic information of the interviewees

Participants	Gender	Age	Experience
A	Male	21	Five weeks online class in Wuxi
B	Female	16	Two weeks quarantine study in Changzhou,
C	Female	16	3 month online class in Shanghai, where she had the AP exam
D	Female	18	Three weeks of quarantine before College Entrance Examination in Wuxi
E	Male	17	30-day quarantine study in Xi'an

As presented in Table 1, all participants of the interview are students from grade 10 to senior students in college, all of whom underwent unexpected quarantine and had online classes. Participant D's circumstance was special among the interviewees, as she was a Grade 12 student who was about to take the important College Entrance Examination. The city she lives in is Wuxi, a city that only allowed Grade 12 students to have on-campus study during the quarantine. However, she still had online classes because many of her teachers could not go to school due to the epidemic control. She sat in the classroom and attended online study, but the teachers were teaching remotely.

For question one, all participants undoubtedly indicated a preference for offline study on campus.

The second question triggered enthusiastic complaints from all participants. "I screwed up my mid-term exam," said Participant A, "I used to study at night in the campus library, but at home, the ambiance is much different, I cannot study for long sitting in front of a computer."

The same thing applied to Participant B. "I just cannot study well online. It is different. Also, asking questions in classes online is a dreadful task. It embarrasses me to unmute myself when everybody is muted. You don't know when the quarantine ends."

"For the entire semester, I studied online. It was a nightmare even till now." Complained Participant C, "I hate to hear those electronic voices from my headphone, the same words spoken in reality sounds terrible and noisy during online classes. I thought it would last 2 weeks, but it was three months."

"I cannot interact with my teacher normally. The screen gives me a sense of alienation." Concluded Participant D.

"I didn't know what others were doing. I worried that they would study more diligently at home and we return to school, I shall be left behind. I cannot see an end to the online classes The gap between me and my peers only gets larger with time." Participant E replied.

For the third question, the answers are stated below in Table 2.

Table 2. Respondents' reasons for opposing segregation

Participants	Question 3
A	bad environment; bad software; cannot concentrate
B	difficult interaction as some teachers cannot use the software well; low study efficiency
C	noise from microphone; difficult to ask questions; low study efficiency
D	low study efficiency; difficult interaction
E	peer pressure; cannot concentrate

The fourth question received a unanimous answer: students are more stressed during the quarantine study.

To conclude, the interviewees have different reasons for their opposition to the quarantine study. The common factor was a decrease in study efficiency due to the online environment or anxiety. In addition, interaction is an important factor. Using meeting software applications in class is inefficient for communication and interaction. Also, quarantine begins with no specified dates to end, bringing a sense of uncertainty.

5. Summary

Altogether, the policy provides an unstable online environment for learning, as no end dates were announced initially. To be more specific, having classes online involves looking at the screens of devices, which is reported as a source of stress levels. In addition, low study efficiency is reported commonly. Along with burdensome study tasks, the policy brings a negative impact on students' learning. Other important reasons include peer pressure, lack of communication, scarce activities, and difficulty with interaction. Particularly, students feel stressed because of the shortage of life supplies in Shanghai, a city that underwent long quarantine periods. These findings indicate that the stress of students increases with longer quarantine.

Five suggestions are given to address the increasing stress problem according to the questionnaire and interview results for the government and education institutions. Firstly, based on past lockdowns, the government could give an estimation of the end date of a lockdown to reassure the population. Secondly, efforts should be made to urge software companies to ameliorate their user experience and make it easier to have online classes. Thirdly, schools should organize curricular activities online to help students socialize and communicate during the quarantine, instead of just giving academic content. Fourthly, schoolwork should be given an appropriate quantity. The offline study is different from online learning; therefore, it is improper to give the same schoolwork. Fifthly, all measures should be taken to ensure the life supplies of students during the quarantine. Commodities are sources of normal life. Lacking basic supplies can lead to serious life crises. All these measures are possible methods to address the problem and help students cope with stress.

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Appendix

Responses to Questionnaires

Students' Response to "How long have you been studying online during the quarantine?"			
Choices	Shanghai	Xi'an	Changzhou
More than 6 weeks	77	13	2
4-6 weeks	14	47	5
2-4 weeks	13	18	58
Less than 2 weeks	4	22	21

Students' Response to "From 1-5, rate your stress level during the quarantine."			
Choices	Shanghai	Xi'an	Changzhou
5-Very Stressful	67	22	7
4-Obvious Stress	10	41	33
3-Moderate Stress	14	10	29
2-Some Stress	12	12	5
1-Little or No Stress	5	5	12

Students' Response to "Compare your stress during quarantine study with your stress in offline study."			
Choices	Shanghai	Xi'an	Changzhou
Quarantine Study is More Stressful	77	52	40
Equally Stressful	25	21	43
Offline Study is More Stressful	6	17	3

Students' Response to "During the quarantine, what mainly makes you stressful?"			
Choices	Shanghai	Xi'an	Changzhou
Low Study Efficiency	51	37	23
Uncomfortable with Screen	65	45	33
Lack of Communication with Friends	45	23	19
Doesn't Know Others' Study Progress	39	27	29
Uncomfortable with Camera	33	23	24
Burdensome Study Tasks	37	40	29
Lack of Curricular Activities	34	22	22
Lack of Sports	31	17	18
Lack of Supplies (Food, Water, etc)	71	23	6
Addiction to Online Entertainment	27	14	26
Others	9	3	3