

THE GOVERNMENT'S OVERALL MANAGEMENT EFFICIENCY UNDER THE COVID-19: ACTIVE INTERVENTION ON CITIZENS' PANIC AND NEGATIVE EMOTIONS

Lu Li & Hongquan Li*

Northeast Normal University, Changchun 130117, China

SUMMARY

Background: At the end of 2019, the COVID-19 first broke out in China. Without any preparation in advance, the Chinese government unit with the people and enterprises, and finally ended the epidemic of Wuhan by means of thunder, and kept the epidemic level under control through subsequent normal prevention and control and dynamic clearing. From this incident, we can see that the government's overall management efficiency can have a significant impact on the national panic and negative emotions.

Subjects and methods: In order to explore the impact and intervention effect of the government's overall management effect on citizens' panic psychology and negative emotions under the COVID-19, this study, after collecting and sorting out relevant literature, used the expert inquiry method to understand and study the subject, hoping to improve China's ability to deal with large-scale public emergencies.

Results: The survey results show that the measures of local city closure, home isolation, mandatory wearing of masks in public places, regional comprehensive nuclei acid testing, and patient graded treatment management among the government's overall management methods have the most obvious effects on alleviating people's panic and negative emotions.

Conclusions: The results of this study shows that the local city closure, home isolation and other measures in the government's overall management method have the most obvious effect on alleviating people's panic and negative emotions. Under the COVID-19, the government maintains a strong overall management ability, which plays a particularly significant role in controlling the impact on the incident on the people's psychology.

Key words: COVID-19 - overall management efficiency - government intervention - panic psychology - negative emotions

* * * * *

INTRODUCTION

Fear is a kind of intense psychological activity of biology, and it also belongs to a common kind of emotion. Fear is what we usually call "fear" (Langford 2020). According to some psychologists, the impact on fear on humans is similar to the threat, but to a lesser extent than the threat (Evans et al. 2018). Fear arises when the marginal element rather than the core element of an individual's preparation for an event that may cause huge unknown losses to itself is proved to be ineffective (Yang et al. 2020). And the negative emotions brought about by fear may lead to various serious diseases (Silver et al. 2020). In fact, it is often seen in real life that the onset of many neurological diseases is related to emotional excitement, especially for patients who often have anger, depression, fear, anxiety, excitement, tension, sadness and other emotions, they often have stroke, convulsions, cerebral hemorrhage and other symptoms during or after the violent attack of these emotions (Yoon et al. 2021). Moreover, some medical studies have confirmed that under the long-term stimulation of most negative emotions, the cerebral cortex and hypothalamus will be in an excited state, which will increase the secretion of vasoactive substances such as norepinephrine, epinephrine and catecholamine, resulting in systemic vasoconstriction, accelerated heart rate, increased blood pressure, increased pressure in cerebral vessels, and the

blood circulation system is prone to hardening, loss of elasticity rupture occurs at the site where the microaneurysm forms, leading to bleeding symptoms. Therefore, with the spread of the COVID-19, it is necessary to study the effects of the government's various coordinated epidemic prevention centers on the control and management of public panic and negative emotions, so as to summarize more effective public psychological management measures and reduce the psychological change range and negative emotion severity of citizens facing other public emergencies in the future (Nakhla et al. 2021). Some psychologists and public health experts have carried out a lot of research on the control of people's negative psychological emotions under the sudden large-scale public health events, but most of them are limited to theoretical analysis, and there are still very few studies using social experiments, expert consultation and other methods to carry out theoretical effectiveness cross validation. Therefore, based on the analysis of literature, this study attempts to carry out interviews and expert consultation to understand the opinions of experts on the research topic, and draw some optimized measures for the control of people's negative psychology of the COVID-19 (Hastings & Sims 2018).

SUBJECTS AND METHODS

Study setting

For human beings, fear refers to the strong and repressed emotion of fear and fear brought about by the idea of trying to get rid of the status quo and being unable to do anything when facing a certain dangerous situation (Berry et al. 2018). When fear occurs, individuals often have a series of physiological changes, such as rapid heartbeat or arrhythmia, shortness of breath or pause, dry mouth, cold sweat, weakness of limbs, elevated blood pressure, pale face, trembling lips, etc. these physiological disorders often lead to or promote the occurrence of physical diseases (Reed 2019). On the other hand, fear can cause confusion or even obstacles in people's perception, memory and thinking process, thus losing the ability to calmly analyze the current situation, and may lead to abnormal behavior (Agnoli et al. 2019). For example, when refugees encounter enemy troops, they may give up hiding and running away because of fear and stay where they are (Cho et al. 2021). It can be seen that the root cause of fear is the lack of human understanding of objective things (Lebois et al. 2019). Therefore, by improving the cognitive and analytical ability of things, one can expand one's cognitive vision and greatly reduce the impact of fear on oneself (Odunaiya et al. 2021). Secondly, we should cultivate optimistic interest in life and strong will. By learning the deeds of heroes, we should inspire ourselves with the brave and indomitable spirit of heroes. In daily training and life, consciously put yourself in a difficult environment to hone willpower and pressure resistance, and cultivate a brave and indomitable style. In this way, even if you really fall into a dangerous situation, you will not become panicked at the moment, but you can quickly enter a calm state to analyze the current situation and find a solution.

At the same time, fear can also bring a series of

negative emotions. In psychology, anxiety, tension, anger, depression, sadness, pain and other emotions are collectively referred to as negative emotions, or negative emotions. The reason why people call these emotions is that such emotional experience is not positive and will also bring discomfort to the body of the emotional experience. Relevant studies have repeatedly pointed out that about 15-20% of the world's population suffer from emotional disorders, or are troubled by several kinds of emotional and psychological emotions for a long time. And these common physical and mental disorders may be related to coronary artery disease, but few people have studied whether there is a correlation between physical and mental diseases and cardiovascular and cerebrovascular diseases. After studying the domestic and foreign literatures on the treatment of novel coronavirus, the research team found that several government's strong overall control measures shown in Figure 1 may play a significant role in alleviating and preventing the public's fear and negative emotions caused by the COVID-19 epidemic.

It can be seen from Figure 1 that local city closure, home isolation, mandatory wearing of masks in public places, regional comprehensive nucleic acid testing, and patient grading treatment management measures have a significant effect on alleviating the negative emotions of the public caused by the COVID-19. This is because the epidemic situation will be controlled within a certain range after local city closure, home isolation and regional comprehensive nucleic acid detection measures are taken, and the mandatory wearing of masks in public places and the management measures of graded treatment of patients will greatly limit the spread of the virus. So as to give the public enough confidence to fight against the unknown fear of the epidemic.

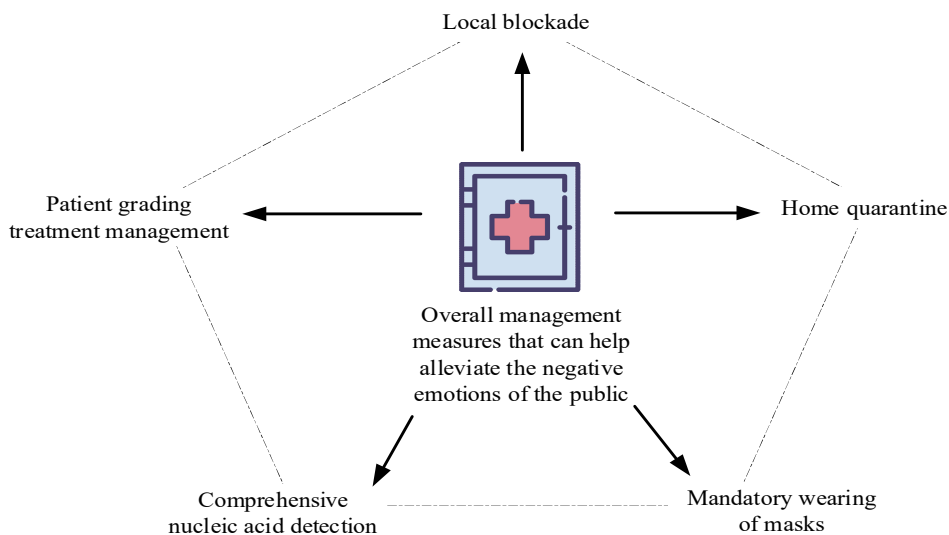


Figure 1. Overall management measures to help alleviate negative public emotions.

Design

In order to explore the specific impact on the main measures taken by the Chinese government on

alleviating citizens' panic and negative emotions, after summarizing the effective government response measures through literature analysis, this study selected 58 epidemiologists and psychologists from China to

form an expert group. See Table 1 for the basic information.

It can be seen from Table 1 that the basic information of the expert group has high authority and representativeness in the academic community, indicating that the selection of the expert group personnel is reasonable and there is no need to adjust the members. Then, the summarized countermeasures are sent to all experts, who are invited to evaluate the positive impact of each countermeasure on the public's fear and negative emotions. In order to simplify the evaluation difficulty of the expert group, the impact degree is solidified into five categories: no impact, subtle, common, significant and particularly significant. Only the results closest to their own cognition can be

selected from these five categories, and the above impact levels are given five integers of 1, 2, 3, 4 and 5 respectively, so as to realize the numerical value of impact level. After the expert group feeds back the evaluation results to the research team, the research team sorts out the information and judges whether the comments are agreed. If there are major differences, the sorted results need to be sent to each expert group member again to continue the evaluation. The inquiry cycle cannot be stopped until the expert group reaches an agreement. After the expert inquiry, a number of randomly selected experts from the expert group should be interviewed to understand their views on the effectiveness of the government's overall management under the COVID-19.

Table 1. Basic information statistics of expert group

Required statistics No	Statistics required	Segment information items	Statistical value	Explain
#1	Years of teaching	-	9.52±3.47	Only the time for teaching students with university degree and above is counted
#2	Number of published papers	-	7.5±3.1	Papers that do not calculate the grade of general publications
#3	Age	-	52.6±11.4	Calculated according to the Gregorian calendar date of birth
#4	Gender	Male Female	32 26	-
#5	Total cited amount of paper	-	74.8±21.9	The Consider only the number of citations in the last 5 years

RESULTS

After the completion of the expert inquiry experiment, a research team sorted out all the data information, entered it into the computer, and statistically analyzed the positive impact of the government's overall management measures on the control of people's panic and negative emotions, as shown in Table 2.

The cell values in Table 2 represent the number of members of the expert group who believe that a certain strategy will have a certain level of positive impact on people's panic psychology and negative emotions. The first row shows various levels of impact, and the first column shows the government's overall management measures finally selected by the expert group, which can have a significant positive impact on people's negative emotions in the face of the COVID-19. According to the analysis in Table 2, the experts believe that among the measures taken by the government to deal with the COVID-19, the two measures that have the most significant effect on alleviating the people's fear and negative emotions are "regional comprehensive nucleic acid detection" and "local blockade", followed by "mandatory wearing of masks in public places" and "hierarchical treatment management of patients", and the relatively small effect is "home isolation", The number of people who think that the above measures will have a higher impact on people's fear and negative

emotions than the "obvious impact" level is 22, 20, 5, 9 and 2 respectively. Then analyze the impact quantitative score of each countermeasure from the perspective of numerical value, and the statistical results are shown in Figure 2 See formula (1) for the calculation rules of standard deviation in Figure 2.

$$S_x = \sqrt{\frac{\sum (x_i - \bar{x})^2}{P - 1}} \quad (1)$$

In formula (1), S_x is the standard deviation of the sample set, \bar{x} is the mean value of all samples, P is the total number of samples, and x_i is the sample value of the i th sample.

The horizontal axis in Figure 2 shows the countermeasures that experts believe can positively affect and control the public's fear and negative emotions under the influence of the COVID-19. The vertical axis represents the quantitative score of the impact grade of the expert group members on each countermeasure. It can be seen from Figure 2 that almost all experts believe that the measures of local blockade, home isolation, mandatory wearing of masks in public places, regional comprehensive nucleic acid testing, and patient graded treatment management in the government's overall management method have had an average impact on alleviating people's panic and

negative emotions of 4.02, 2.60, 3.41, 4.05, and 3.40 respectively, which are sorted in descending order according to the average of the impact grade quantitative scores. The results are comprehensive regional nucleic acid detection, local blockade, mandatory wearing of masks in public places, graded

treatment and management of patients, and home isolation, which are basically consistent with the analysis results in Table 2. Again, it shows that the consultation results of the expert group are consistent enough.

Table 2. The expert's opinions on the positive impact on the government's overall management measures on the control of people's panic and negative emotions

Overall management measures	No impact	Subtle influence	Common impacts	Significant impact	Particularly significant impact
Local blockade	0	4	11	23	20
Home quarantine	5	21	26	4	2
Mandatory wearing of masks in public places	0	7	25	21	5
Regional comprehensive nucleic acid detection	0	2	15	19	22
Patient grading treatment management	2	8	22	17	9

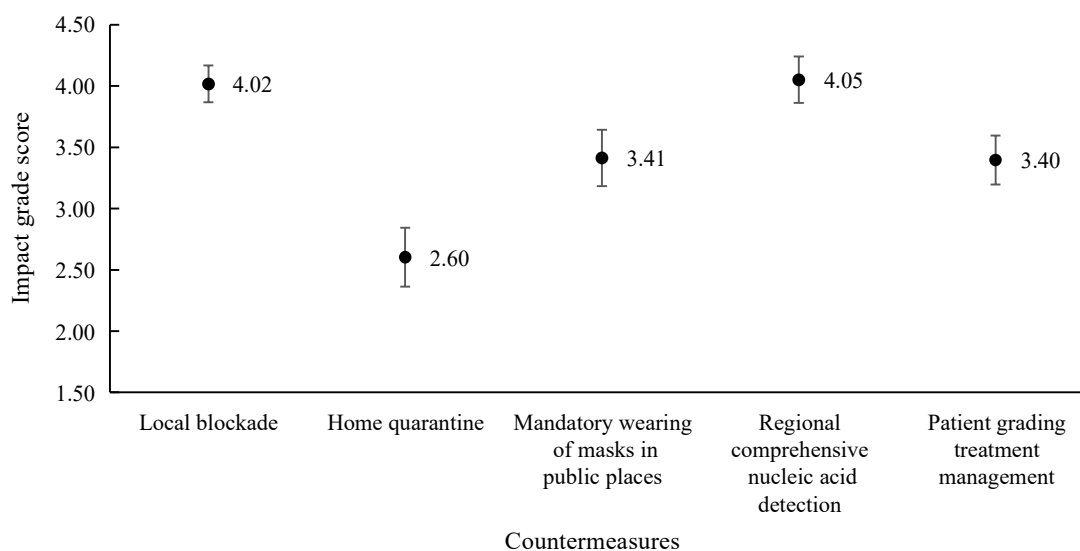


Figure 2. Quantitative scoring statistics of the expert group on the positive impact of the government's overall management measures on the control of people's panic and negative emotions

DISCUSSION

After talking with the expert group, the research group found that to improve the overall governance efficiency of the government, we need to start from the following aspects (Cao et al. 2021). First of all, the government needs to deal with the relationship between itself and the market, improve the macro-control and market supervision and governance system, and reduce the impact on macro-control on people's psychology. The market determines the allocation of resources, which is the general law of the market economy and the only way to realize economic modernization. Promoting high-quality and sustainable economic development is an essential basic skill for governments at all level (Suzuki et al. 2019). In the current special development period, governments at all levels are not only responsible for epidemic prevention and control, but also for ensuring economic development. The two major tasks should be shouldered by one, and the two major

tasks should be tackled together. In particular, it is necessary to keep a clear head in dealing with the problem of administrative intervention in the market. Otherwise, if excessive market intervention measures are carried out, such as blocking urban areas in a large area for local sporadic epidemics, it will lead to a substantial increase in the negative emotions of the people in the blocked areas, which is not conducive to regional economic development, nor to the people's psychological preparation to firmly cooperate with the national long-term epidemic prevention measures. Therefore, the government needs to unswervingly deepen the market economy reforms under the epidemic environment, give full play to the decisive role of the market in allocating resources, and unswervingly optimize the government responsibility system, so as to give consideration to the epidemic prevention and control, economic development and the management of people's negative psychological emotions. Facts show that in some fields and departments, there are still

problems of “market operation failure” such as imperfect market system and fair competition system, as well as “government management failure” such as excessive government intervention and inadequate supervision. “Market operation failure” is mainly manifested in the fact that the managers of some enterprises, especially state-owned enterprises, have a sense of luck and conformity, and interfere with epidemic prevention measures or destroy the market order under the epidemic situation driven by the protection of departmental interests or private interests. “Government management failure” is manifested not only in the excessive interference in some departments in the market and enterprises, but also in the disorderly acts or omissions of some departments. The ruling process relies too much on their own subjective consciousness and psychological conditions, and blindly carries out various epidemic prevention measures or economic recovery measures, resulting in people’s distrust of the local government and even refusal to cooperate with relevant measures. The practical problems of these two aspects can be said to be both institutional weaknesses for the market economy reform under the epidemic environment and projects that must be deeply solved to realize the negative psychological regulation of the people in the normalization supervision of the epidemic (Rouder et al. 2018).

The second optimization measure is to properly handle the relationship between the public sector and individuals, and enhance the government’s governance ability to meet the people’s needs from multiple perspectives according to the people’s psychological needs in public health emergencies. Socialism with Chinese characteristics has entered a new era, new changes have taken place in social contradictions, and social management is facing many new problems. The contradiction between the people’s growing needs for a better life and unbalanced and inadequate development is not only the fundamental basis for promoting high-quality and sustainable economic development, but also the fundamental basis of deepening the reform of the administrative system and improving the government governance system. At present, China is at the critical moment of completely defeating the COVID-19, and the people’s yearning for a better life is becoming stronger and stronger. Moreover, the occurrence and spread of the COVID-19 have further highlighted the people’s health, safety, psychological safety and other needs from an important aspect. The government needs to timely understand the opinions and feelings of various groups in the society on epidemic prevention measures through various ways, so as to understand the psychological needs of the people for epidemic prevention measures, and take targeted ways to optimize and adjust, so as to better defeat the COVID-19.

CONCLUSIONS

In order to explore the impact and intervention effect

of the government’s overall management on citizens’ panic psychology and negative emotions under the COVID-19, this study used the expert inquiry method to understand the subject after collecting and sorting out relevant literature. According to the analysis and investigation results, among the measures taken by the government to deal with the COVID-19, the two measures that have the most significant effect on alleviating people’s fear and negative emotions are “regional comprehensive nucleic acid detection” and “local blockade”, followed by “mandatory wearing of masks in public places” and “hierarchical treatment management of patients”, and the relatively small effect is “home isolation”. The number of people whose fear and negative emotion will be relieved by the above measures is higher than the “significant impact” level is 22, 20, 5, 9 and 2 respectively, and the average scores of these methods are 4.05, 4.02, 3.41, 3.40 and 2.60 respectively. The results of inquiries and expert interviews show that most of the current overall management measures taken to deal with the COVID-19 in China can play a significant role in controlling each kind of panic and negative emotions, and the development of vaccines against highly transmissible new coronal variant viruses and the implementation of a small-scale blockade based on 5g positioning and benchmark flow can further reduce the panic and negative emotions of the people caused by the epidemic. The research results will help to further improve our government’s ability to deal with public emergencies and the public opinion control ability. However, due to the limitations of research conditions, it was not able to collect more different foreign government response measures for comparative analysis, which is also the direction for follow-up research to be improved.

Acknowledgements: None.

Conflict of interest: None to declare.

Contribution of individual authors:

- Lu Li: conception and design of the manuscript and interpretation of data, literature searches and analyses, clinical evaluations, manuscript preparation and writing the paper;
Hongquan Li: made substantial contributions to conception and design, literature searches and analyses, participated in revising the article and gave final approval of the version to be submitted.

References

1. Agnoli S, Mancini G, Andrei F & Trombini E: *The relationship between trait emotional intelligence, cognition, and emotional awareness: an interpretative model. Frontiers in Psychology* 2019; 10:1711-1711
2. Berry HL, Waite TD, Dear KB, Capon AG & Murray V: *The case for systems thinking about climate change and mental health. Nature Climate Change* 2018; 8:282-290
3. Cao Q, Wang J, Hao Y, Zhao F, Fu R, Yu Y & Sun Z: *Exercise ameliorates fluoride-induced anxiety - and*

- depression-like behavior in mice: role of GABA. *Biological Trace Element Research* 2021; 200:678-688
4. Cho H, Likhtik E & Dennis-Tiwary TA: Absence makes the mind grow fonder: reconceptualizing studies of safety learning in translational research on anxiety. *Cognitive Affective & Behavioral Neuroscience* 2021; 21:1-13
 5. Evans TM, Bira L & Gastelum JB: Evidence for a mental health crisis in graduate education. *Nat Biotechnol* 2018; 36:282-284
 6. Hastings T & Sims T: Whole health begins with mental health interprofessional education (IPE): developing, implementing, and evaluating IPE simulations in undergraduate nursing programs. *Journal of the American Psychiatric Nurses Association* 2018; 24:274-274
 7. Langford S: Knowledge judgements and cognitive psychology. *Synthese* 2020; 197:3245-3259
 8. Lebois LA, Seligowski AV, Wolff JD, Hill SB & Ressler KJ: Augmentation of extinction and inhibitory learning in anxiety and trauma-related disorders. *Annual Review of Clinical Psychology* 2019; 15:257-28
 9. Nakhla M, Shulman R & Dimeglio L: Mental health matters: limited support remains a barrier to optimal care for youth with diabetes. *Canadian Journal of Diabetes* 2021; 45:379-380
 10. Odunaiya NA, Agbaje SA, Adegoke OM & Oguntibeju OO: Effects of a four-week aerobic exercise programme on depression, anxiety and general self-efficacy in people living with HIV on highly active anti-retroviral therapy. *AIDS Care* 2021; 1:1-9
 11. Reed SK: Building bridges between ai and cognitive psychology. *Ai Magazine* 2019; 40:17-28
 12. Rouder JN, Wixted JT & Christenfeld N: Cognitive-psychology expertise and the calculation of the probability of a wrongful conviction. *Psychon Bull Rev* 2018; 25:2380-2388
 13. Silver AM, Farabaugh JL & Holland D: 11. Time is of the essence: one residency programs approach to breaking down barriers to accessing mental health resources. *Academic Pediatrics* 2020; 20:e7-e8
 14. Suzuki Y, Nakata T & Dekeyser R: Optimizing second language practice in the classroom: perspectives from cognitive psychology. *The Modern Language Journal* 2019; 103:551-561
 15. Yang KG, Rodgers CR, Lee E & Lê Cook B: Disparities in mental health care utilization and perceived need among Asian Americans: 2012-2016. *Psychiatric services (Washington, D.C.)* 2020; 71:21-27
 16. Yoon S, An S, Noh DH, Tuan LT & Lee J: Effects of health education on adolescents' non-cognitive skills, life satisfaction and aspirations, and health-related quality of life: a cluster-randomized controlled trial in Vietnam. *PLoS ONE* 2021; 16:e0259000

Correspondence:

Hongquan Li,
Northeast Normal University, Changchun 130117, China
E-mail: dongxiaokitoki@126.com