How to Improve Scientific Prevention and Control Mechanism of Communities under Public Crisis — Take China's Response to the COVID-19 Outbreak As an Example

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Abstract: *How to respond to sudden public crises is an important element of community governance. The paper starts from the characteristics of public crises, takes China's response to the COVID-19 outbreak as an example, explains the importance of improving community's scientific prevention and control mechanism in both national governance and social stability under public crises, analyzes the problems of community's prevention and control mechanism at this stage, and distills four countermeasures for improving community's scientific prevention and control mechanism, namely, building a collaborative mechanism of community's joint prevention and control of multiple subjects, improving prevention and control system supported by big data, efficient information management mechanism, and emergency security mechanism. The community's scientific prevention and control mechanism built from four aspects transforms the institutional advantages of socialism with Chinese characteristics into the effectiveness of governance in response to public crises, which is an important way to realize the modernization of community governance.*

Keywords: *Public Crisis; Scientific Prevention and Control; Community Governance; Collaborative Mechanism*

1. Introduction

The prevention and control of COVID-19 is a big test for community governance capacity and governance system, and a touchstone for community response to major public crises. General Secretary Xi Jinping, in guiding the prevention and control of COVID-19, stressed the need to play the role of the community as the first defensive line of joint prevention and control, group prevention and control, always attach great importance to the epidemic prevention and control, while also pointing out that "the prevention and resolution of major epidemics and major public health emergencies risk, is always a major event that we must not relax." Currently, China has made significant strategic achievements in the prevention and control of the epidemic, and the epidemic is generally under effective control. In the face of the localized rebound of the epidemic in China and the continued spread of the global epidemic, active and effective epidemic prevention and control measures are being taken around the country. While China's epidemic prevention and control is gradually stepping into comprehensive and precise, this puts higher demands on grassroots communities in terms of mechanisms for responding to epidemics, and there are still problems of unsound collaboration mechanisms among various entities, poor information communication, insufficient ability to integrate resources, and weak crisis management awareness and capacity in terms of public crisis prevention and control mechanisms in communities, which behind these problems reflect the lack of a scientific and improving mechanism for communities in China to prevent and respond to public crises, including major epidemic crises.

2. The Importance of Improving Scientific Prevention and Control Mechanism of Communities under Public Crisis

Public crises are dangerous situations and extraordinary events caused by emergencies that seriously threaten and endanger the public interest and safety, cause social chaos and public panic, and require the use of public power, public policies and public resources to respond and deal with them urgently. The COVID-19, for example, is a public crisis in the health field, characterized by suddenness, urgency,

variability and uncertainty, which is a major test for the modernization of the national governance system and governance capacity.

2.1. Improving Scientific Prevention and Control Mechanism of Communities Is the Cornerstone of the Modernization of National Governance

Community governance is an important part of the national governance system and governance capacity, while the scientific prevention and control mechanism in public crises is the embodiment of community governance capacity, and improving community's scientific prevention and control mechanism is one of the important issues of community governance in the new era. China's community governance in practice is constantly innovating and promoting replicable models and experiences, but when a sudden public crisis comes, the shortcomings of the community governance model will be highlighted and magnified, that is, the level of community governance can only be reflected in a public crisis. The community's scientific prevention and control mechanism is a necessary condition for communities to deal with public crises. Only by improving the mechanisms in the areas of subject management, information sharing, resource integration, communication and coordination can we fully promote the modernization of the grassroots community governance system and governance capacity.

2.2. Improving Community's Scientific Prevention and Control Mechanism Is the Guarantee of Social Stability and Development

As the "last mile" of urban public crisis prevention and control, grassroots communities play an important role in scientific prevention and control, undertaking crisis management, propaganda, monitoring and providing precise social services. Community committees, social organizations, property companies, social workers and other multiple subjects collaborate to carry out scientific joint prevention and control work and provide residents with the necessary life support services. On the one hand, these measures effectively stabilize residents' emotions and provide protection for their basic life, and on the other hand, they stabilize the order of the state and society in the event of a public crisis and avoid social chaos.

3. Existing Challenges of Community Epidemic Prevention and Control under Public Crisis

As the process of globalization continues to deepen, the kinds of public crises facing our country are becoming more complex, constantly extending to more areas, further expanding the threats to people, society and the country, and will have a great impact on the modernization process of our country. Since the outbreak of the COVID-19, some problems of our community in the face of public crisis have been exposed again, mainly in four aspects: imperfect collaboration mechanism of multiple subjects, weak capacity and awareness of crisis management, poor information communication, and imperfect emergency security mechanism.

3.1. Imperfect Collaboration Mechanism of Multiple Prevention and Control Subjects

At present, community governance has shown a trend of collaborative participation of multiple subjects in governance, and a new pattern of multiple governance under the leadership of Party building is being explored and initially formed around the country, with governance subjects mainly including grassroots government, community party organizations, community committees, social organizations, community workers and community residents. In the face of public crisis, the following three problems exist in the collaborative prevention and control of various community governance subjects. First, disorderly participation among the subjects, unclear role positioning, the phenomenon of repeated implementation of the same type of work, and relatively low efficiency. Second, too much intervention by administrative agencies, social forces are ignored, and other subjects in the community lack the enthusiasm and initiative to participate. Third, the lack of effective interaction and information communication between community residents and the grassroots government, community committees, and social organizations, there are still phenomena such as underreporting and late reporting of information.

3.2. Weak Awareness and Capacity of Crisis Management

Crisis management awareness is a wake-up call to prevent public crises. Having a strong crisis

management awareness can prevent the occurrence of public crises to a certain extent, reduce the destructive power of public crises and enhance the social stability of the country, etc. At present, the crisis management awareness of some local grassroots governments and residents in China is still weak, and communities still have unclear delineation of responsibilities and poor coordination of work in response to public crises, making it difficult to effectively adopt epidemic prevention and control means, while the execution of performing epidemic prevention and control varies due to the level of literacy of residents. For example, in the process of epidemic prevention and control, in some old neighborhoods and rental housing areas with more access by foreign populations, there are still some people who are not controlled, take epidemic prevention and control lightly, enter and leave closed areas at will, do not take nucleic acid tests on time, etc. These problems boil down to a weak awareness of crisis management.

The lack of crisis management capacity in the community is mainly reflected in the lack of crisis management capacity of community staff and the lack of community emergency plans. Community workers lack experience in facing public crises and lack knowledge in emergency management. Most of the emergency plans of grassroots communities are only at the level of words and lack of practical exercises, which may lead to loopholes and unreasonable arrangements in the face of sudden public crises.

3.3. Poor Information Communication

Good information communication in the face of public crises is the basis for the orderly implementation of community science prevention and control. On the one hand, there is a lack of effective information communication mechanism and information sharing mechanism between the community and grassroots government departments, between the community and social organizations, and between the community and residents, and it is difficult to achieve efficient information sharing among various prevention and control subjects. On the other hand, it is still common for communities to have opaque information and ineffective information supervision in the process of information disclosure, the government has a certain lag in disclosing information, and the rapid development of the Internet makes it easy to gradually distort information or spread rumors in the process of dissemination, which all indicate the fact that information communication in China is imperfect in the process of responding to public crises.

3.4. Emergency Security Mechanism Is Not Perfect

The governance environment and governance of public crises bring great challenges to the traditional social security supply mode and provision. For example, in the response to the new pneumonia epidemic, Wuhan and Xi'an have adopted closed management measures, which have caused a big impact on the traditional emergency security mechanism, and some community residents still have problems of shortage of living materials and difficulties in accessing medical treatment. Therefore, in the face of sudden public crises, China's community emergency security mechanism is not yet perfect, how to achieve accurate identification of community residents in the public crisis security needs is still inadequate, on the basis of a clear supply of residents, to fully guarantee the emergency supplies reserves, timely and effective delivery of goods and services is the focus and difficulty of community security emergency supply.

4. Analysis of Countermeasures for Improving Community Science Prevention and Control Mechanism under Public Crisis

4.1. The Construction of Community Joint Prevention and Control of Multiple Subjects Collaboration Mechanism

In the face of the new situation of epidemic crisis prevention and control, to break the original situation of the grassroots government to take charge of the situation, should coordinate the forces of all sides of society, to carry out joint prevention and control, to achieve a new situation from a single subject management to the participation of multiple parties in common governance. Improving community prevention and control mechanism of multiple subjects need to clarify the role of each subject, build a reasonable mechanism system of rights and responsibilities, especially to clarify the authority, areas and boundaries of various types of prevention and control subjects in crisis management when a public crisis occurs, and thus ensure the orderly and efficient governance activities of multiple subjects. First, the grassroots government should play a guiding, coordinating and supervising role in public crisis management. On the one hand, the grassroots government should clarify the direction and situation of

crisis development as a whole, support the participation of various prevention and control subjects in the community to respond to the crisis, coordinate the relationship among the subjects, and guarantee the continuity and orderliness of scientific prevention and control work in the community; On the other hand, the grassroots government should strengthen the integration and allocation of various resources in the community, so that it can use its own advantages and the credibility of the government to effectively play a supervisory function over the subjects. Second, community party organizations should play their political and organizational advantages, and party organizations should not only give full play to the role of a fighting fortress, but also mobilize community members to play a pioneering and exemplary role, change their position from "paddler" to "helmsman", and effectively play their own role in crisis prevention and control. Prevention and control in the leading position and role, but also to play organizational advantages, community party cadres to sink, to the masses, to do a good job of community services, mobilize residents to participate in the enthusiasm, the formation of crisis response synergy. Third, the community committee should play a bridge role in community crisis prevention and control under the guidance of the grassroots government to communicate with residents, and timely contact with various social organizations, volunteers, community property management companies, etc. The community committee should keep abreast of what all parties can and do in a crisis, mobilize the enthusiasm and initiative of all parties, bring their strengths into play, and respond to the crisis in a coordinated and efficient manner at the first time. Fourth, social organizations should play their functional characteristics and professional advantages in responding to public crises. Social organizations focus on bringing together the common interests and values of the community and have the characteristics of public welfare, service and mutual assistance, and can provide professional consultation, medical assistance, material collection and other precise services in public crises, and proactively participate in the implementation of the resolution and rescue of community public crises. Fifth, the community scientific prevention and control mechanism requires the formation of social work organizations and volunteer organizations, social workers and community volunteers to serve as the main force in crisis prevention and control, under the guidance of community party organizations and neighborhood committees to carry out professional and voluntary services in an orderly manner. Sixth, residents should strengthen the sense of ownership and participation in community science prevention and control, improve the initiative and enthusiasm of residents, and better cooperate with the prevention and control work of other subjects in the community. The construction of a collaborative governance system of joint prevention and control with multiple subjects of grassroots government, community party organizations, community committees, social organizations, community workers, community volunteers and residents are the primary guarantee for communities to deal with public crises.
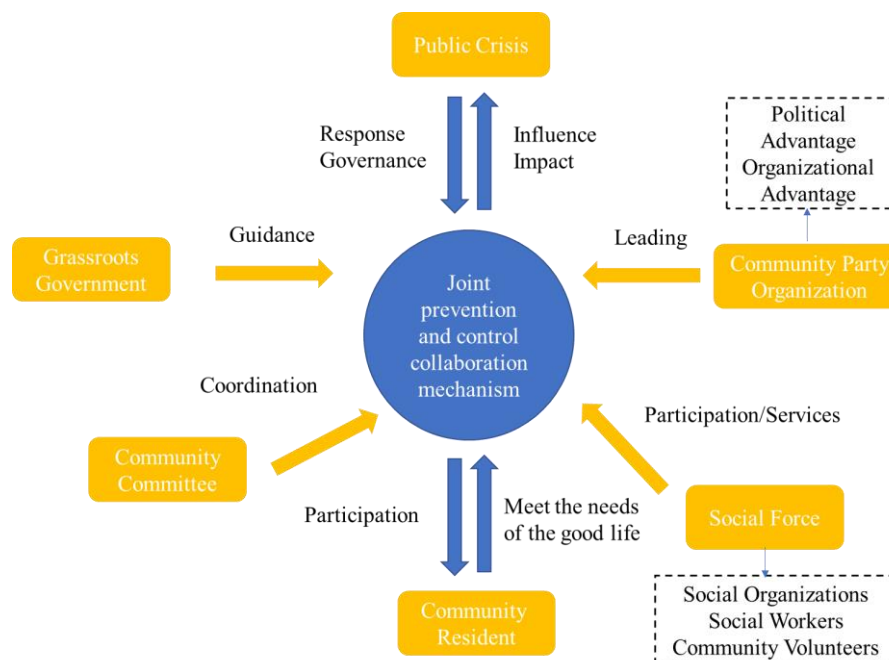

Figure 1: Community joint prevention and control cooperation mechanism

4.2. Improve the Prevention and Control System Supported by Big Data

Enhance the scientific and technological support for crisis prevention and control, and build a crisis prevention and control system with big data as the core. The urgency and proliferation of public crises in the era of globalization make the traditional prevention and control system seriously challenged. For example, the epidemic prevention and control of Newcastle pneumonia is a war against the epidemic in the era of big data. Without the means of prevention and control supported by big data, it is difficult to accurately and effectively control the epidemic in the initial small-scale spread. As the first line of defense for epidemic prevention and control, the community should make full use of big data platforms and other scientific and technological means in public crisis prevention and control. The role of science and technology in the prevention and control of the epidemic in the community is supported in a number of ways: first, the mapping of community residents to achieve greater accuracy and comprehensiveness; second, the registration of community residents in and out of the community to understand the contact with the outside world in real time; third, the rational allocation of medical supplies to effectively do a good job of community prevention and control of material security; fourth, the return of the flow of people to real-time tracking and management to prevent the spread of multiple chains . The advantages of the big data platform in community epidemic prevention and control can enhance the effectiveness of community work and optimize the community crisis prevention and control mechanism. For example, Shanghai Kangjian Street uses information technology to effectively improve the accuracy of epidemic prevention and control, and actively cooperates with the Xuhui District Data Center to promote the application of the "Hui Governance" epidemic prevention and control system, from online booking of masks on cell phones to sweeping codes to help gate management, and then through the public number of the community and small programs to carry out notification, volunteer recruitment, typical The online activities, such as notification, volunteer recruitment and typical publicity through the public number and small program of the community, have helped to strengthen confidence and stabilize people's mind during the epidemic.

4.3. Improving Community Efficient Information Management Mechanism

A good information management mechanism after a public crisis is a necessary condition for community prevention and control and stability.The information management mechanism covers three main aspects: information transmission, information disclosure and information supervision. First, we should establish and improve the information transmission mechanism. An efficiently functioning information transmission mechanism needs to be technically supported by Internet big data, so as to break the information obstruction among government departments and various prevention and control subjects in the community as soon as possible, ensure information sharing of each data among all levels of government and different community prevention and control subjects, avoid duplicate collection and blockage of information data, and thus reduce the pressure of information transmission in the process of scientific prevention and control of public crisis in grassroots communities. The second is to further strengthen the improvement of information disclosure mechanism. The information disclosure mechanism should focus on both timeliness and effectiveness. Taking the new epidemic in China as an example, timeliness requires that information on the epidemic be updated in real time, and if residents lack timely and comprehensive understanding of the epidemic, the community needs to deliver timely and effective information and knowledge on prevention and control to residents through the network platform, so that the general public can understand the changes in the development of the epidemic and effective prevention and control measures. The effectiveness of the information requires that the content of the information should be focused on the public transmission, and its content is helpful to the residents in the community in terms of epidemic prevention and control, so as to enhance the influence of the community. Finally, a improving information supervision mechanism should be established. On the one hand, the community should establish a three-level audit mechanism for information verification, editing and release, supervise the authenticity of the information disclosed to the public, ensure accuracy, and avoid a sense of panic among community residents when they see false information or incomplete information, to relieve residents' psychological pressure and further maintain social stability. On the other hand, the community should further broaden the information communication channels between the residents and the neighborhood committee and establish links with the news media. The news media can quickly transmit information and guide the direction of public opinion, and can report the occurrence and development of events in a public crisis from the events themselves in a comprehensive, objective and truthful manner, and can also pay attention to the direction of public opinion and provide effective help for community information supervision, so the community and the news media Establishing links is one of the important ways to effectively realize information supervision.

4.4. Improving Community Emergency Security Mechanism

Improving community emergency security mechanism is one of the important ways to enhance the effectiveness of public crisis governance. Improving the community emergency security system for responding to major sudden public crisis events needs to be started from the following three aspects: first, focus on collaborative governance of community emergency security. First of all, the dominant position of the grassroots government in the community emergency security mechanism should be clarified. On April 16, 2018, the Ministry of Emergency Management of the People's Republic of China was listed and established, marking the further improvement of China's emergency management system, and the community is the first line of defense for crisis prevention and control, and is an important unit in the national emergency security system. At the same time, market players should be introduced. The supply of community emergency security materials needs the participation of the market, which realizes the effective allocation of community emergency security resources under the unified deployment of the government. Second, it should focus on the effective docking of community residents' emergency needs. Accurate and rapid docking of community residents' needs is the basis for formulating community security mechanism and improving relief efficiency. On the one hand, we should improve the content system of community relief in response to sudden public crisis events, establish relief content indicators covering all aspects of basic living needs, expand economic relief and material relief to medical services and other multifaceted service relief, and incorporate basic living material security into the community emergency security mechanism. On the other hand, if the establishment of a big data network and platform to ensure the emergency supply of streets or communities as a unit, to achieve the effective management of online and offline relief resources, to further broaden the channels of expression and feedback of residents' demand supply, and to achieve dynamic tracking of service recipients. Third, focus on the standardization of the operation of the community emergency security mechanism. First of all, we should improve the perfect mass supervision mechanism in terms of community security, both to make the community security resources and information open and transparent, and to broaden the channels of mass supervision; and to incorporate the community security emergency mechanism into the legal framework and enhance the legal effect of the social security emergency mechanism.

5. Conclusion

At the time of public crisis, the community is the first line to deal with crisis prevention and control, and an improving scientific prevention and control mechanism to deal with public crisis is an important part of community governance in China at present. In this paper, the importance and necessity of the scientific prevention and control mechanism of communities under public crisis are explained by taking the New Crown pneumonia in China as an example. Through the analysis of four problems that still exist in China at the time of public crisis, the countermeasures to cope with the problems in China are given, namely, the construction of a collaborative mechanism for joint prevention and control of multiple subjects in the community, the improvement of an efficient information management mechanism in the community, the improvement of the emergency security mechanism in the community, and the improvement of the prevention and control system supported by big data. Meanwhile, the problem studied in this paper is based on China's response to the new crown epidemic, which belongs to the public crisis in the health field, and there is still some room for expansion in the research field. According to traditional Chinese philosophical thinking, crises often contain opportunities for change. The prevention and control of the Newcastle pneumonia epidemic is a "parade" for China's community governance, and it also further promotes the improvement of community science prevention and control mechanisms and the modernization of community governance capacity in public crises.

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