



Full length article

Research on Public Health Crisis Management in People's Public Hospitals in COVID-19 Prevention and Control

Wang Yuan He

University of Cyberjaya, Malaysia

Corresponding Email: 2202-5194@st.cyberjaya.edu.my

Article Info

Received: 27.03.2023

Accepted: 10.04.2023

Available online: 03.07.2023

Keywords:

COVID-19 prevention and treatment; Public health crisis management

DOI:

<https://doi.org/10.59857/VERG9374>

ABSTRACT

To explore the COVID-19 treatment in the prevention and treatment of public hospitals and also with regards to the public health crisis management practice experiences, this study through the literature analysis and field investigation method, selects People's public hospital as the research site. From the research analysis and results, the deficiencies revealed from the public health crisis management team, and the countermeasures and suggestions/remedies are discussed.

1. Introduction

Since the beginning of the 21st century, mankind has not only faced the pressure of economic development, but also faced the thorny public health problems. The SARS epidemic in 2003, the H1N1 swine flu outbreak in 2009, the Ebola epidemic in West Africa in 2014, the Zika virus in 2016 and the COVID-19 all threatened the health and safety of mankind and had a huge impact on the economic development of the world. People's health is the common pursuit of the people and an important foundation for China's prosperity. Since the 18th CPC National Congress, the CPC Central Committee with General Secretary Xi Jinping at its core has included a healthy China into a national strategy and systematically planned it from the overall perspective. The state has formulated a series of reform measures to promote the reform of the medical system and promote the steady development of health care. In 2019, the average life expectancy of residents increased to 77.3 years, the ratio of personal health expenditure in total health expenses decreased to 28.4%, people's health level was significantly improved; the number of basic medical insurance coverage exceeded 1.3 billion, and the ability to guarantee people's health services was greatly improved; 832 poor counties have at least one public hospital in each county, the health poverty alleviation effect. The fifth Plenary Session of the 19th CPC Central Committee in 2020 made a strategic plan to comprehensively promote a healthy China, calling for the improvement of the health system and bringing people's well-being to a new level. During the 14th Five-year Plan period, the goal is to fully implement all the tasks of a healthy China and take more effective measures to consolidate the country's health foundation.

The COVID-19 outbreak in 2019 was the most harmful public health emergency and the most difficult to prevent and control since the founding of the People's Republic of China. The battleground of the epidemic is the best opportunity to examine the public health system and the medical service capacity of public hospitals. Compared with foreign countries, China's health system has successfully withstood the test in the challenge of COVID-19, and the epidemic prevention and control work has delivered satisfactory results. All these show that China's health development path is in line with China's national conditions, the emergency system can withstand major public health risks and challenges, and the emergency command mechanism is scientific and effective.

In the early stage of the epidemic, the emergency response mechanism of People's public hospital was not perfect, the important disposal work was not fully implemented, and there was a serious lack of epidemic prevention materials and the emotional tension of personnel. All these problems show that ¥ public hospitals have a weak awareness of crisis, the insufficient ability of crisis management personnel, too little investment in epidemic prevention funds, and the lack of humanistic care in emergency work. Crisis management requires efforts to remedy and minimize losses in any process where a crisis occurs. We should take a long-term view of the current predicament, cultivate new opportunities in the crisis, and open new opportunities in the changing situation. In the implementation of the healthy China strategy today, first of all, we should strengthen the crisis awareness and improve the crisis management system combining peacetime and wartime. Secondly, we should pay attention to the capacity building of epidemic prevention personnel and strengthen the emergency training. At the same time, we should increase the investment of epidemic prevention funds to provide sufficient guarantee materials. Finally, we must pay attention to psychological intervention to relieve the tension of the masses.

The COVID-19 crisis is far from disappearing, and we are still in a deep epidemic crisis. Chronic coexistence with the epidemic may be the norm in our lives. Y Epidemic prevention and control has a long way to go, and it is important and urgent to optimize public health crisis management.

2.0 Literature Review

In the late 1990s, Chinese scholars began to pay attention to the construction of crisis management, initially focusing on the political field. In 1999, Li Wenyuan published "Strengthening the Construction of Emergency Medical Care and Improving the Emergency Support Capacity". In 2003, the outbreak of SARS led to more and more scholars began to study the construction of the public health crisis.

In terms of the connotation of emergency management, Shan Chunchang believes that emergency management is a management activity carried out to deal with emergencies. It is to reduce the loss of life and property and social disorder caused by emergencies. After the SARS epidemic in 2003, China established an emergency management system with "one case, three systems" as the core, thus laying the legal foundation of emergency management. Therefore, emergency management is a basic function R that Chinese governments at all levels must strengthen (Shan Chunchang, 2012). In the development of the emergency management system in China, Zhong Kaibin divided it into four stages: before the reform and opening up, the first stage; after the reform and opening up in 2003, the second stage; after the SARS epidemic in 2003, the third stage was the fourth stage in 2012. In general, since the founding of the People's Republic of China, the development and change of China's emergency management system takes controlled decentralization and enabling coordination as the main line, but the whole process has the characteristics of non-linear dynamic evolution R (Zhong Kaibin, 2020).

In terms of public health crisis prevention measures, Hiragawa believes that scientific defense is the most fundamental way to prevent the crisis. Because it is gratifying to properly solve the problem properly, the most severe is to eliminate the crisis at the earliest stages (Hirakawa, 2005). Sun Jiwei believes that a thousand-li dike is broken in a nest. As long as the crisis has been formed, it is difficult to recover the loss in the most correct way in time. He put forward the concept of "prevention first, prevention combined with elimination", and prevented the formation of crisis through the tools of problem management (Sun Jiwei, 2008). In terms of the problems existing in the public health crisis, Zhang Hao and others believe that public hospitals have problems such as separation of medical treatment and prevention and disconnected cooperation in the prevention and control of COVID-19 (Zhang Hao, 2020). If public hospitals do not adjust the list of emergency supplies according to the dynamic development of the epidemic and the risk assessment results, then there must be a certain lack of the type or quantity of emergency supplies. Although both public hospitals and government departments have established the relevant management system of emergency supplies reserve, it is difficult to achieve the linkage effect between the two. The lack of communication leads to the inability of emergency supplies to subsidize each other, and continues the relative shortage of emergency supplies (Cha Jingru, 2020). In terms of the measures to solve public health crises, Pan Chenggang believes that public hospitals should correctly understand the types and causes of public hospital crises, and choose the right way to deal with them according to their own hospitals, so as to minimize the damage caused by the crisis (Pan Chenggang, 2014). Tang Shikui think in the public health crisis, public hospitals should first ensure the public health emergency work organization system of normalization, and strengthen the training of emergency personnel, improve the ability of emergency management, and establish emergency supplies reserve normalized mechanism, finally establish a modern remote information system platform, can effectively respond to the damage brought by the crisis (Tang Shikui, 2020). According to the 4R crisis management theory and combined with the problems exposed by public hospitals in the COVID-19 epidemic, Li Xinyun discussed the countermeasures to optimize the crisis management from four aspects: reduction, preparation, response and recovery, and especially proposed to pay attention to the feedback work after the epidemic (Li Xin yun, 2020). Zhang Hao with PCIC three dimensions: internal governance, external collaboration and humanized environment for the overall framework, respectively from the new outbreak early prevention, emergency preparedness, emergency disposal and recovery feedback four aspects of the prevention and control measures, finally can use PCIC mode to promote public hospital service integration, collaboration, epidemic prevention and control forward (Zhang Hao, 2020).

China's "emergency" corresponds to the English emergency, in 2000 the United States the disaster reduction act will emergency for two categories, one kind for local level can be dealt with the dangerous events, and refers to the President or the federal government to help, enhance the ability of local emergency management, to save lives, maintain public health and security, reduce the threat of disaster. In the public domain, "emergency" and "crisis" are often confused. "Emergency management" is used in China, while the concept of "crisis management" is used abroad. Most studies believe that there is no essential difference, but there are two differences: first, the severity of the crisis is higher than that of the emergency; second, the crisis has a relatively specific subject, while the emergency is not.

In 2019 surveyed the information of 2,084 senior managers from 43 countries, 25 industries and 25 industries, of which 1,430 had experienced at least one crisis in the past five years, analyzing a total of 4,515 crises. He believes that when the crisis becomes the new normal, all departments will respond to three waves: mobilization,

stability, and strategy. According to PwC's 2019 global crisis survey, organizations with crisis response plans performed better post-crisis than those without crisis response plans. Crisis response planning is the foundation of effective crisis management: it provides the structure and guidance to meet the challenges of major unplanned events. A hole in the right position from the outside may be a valuable asset (PWC RichardOldfield, 2020).

In terms of the crisis management cycle, Uriel Rosenthal believes that the management activities should run through the whole process of the occurrence, evolution and end of a public crisis. Crisis management activities include: "Crisis prevention, crisis preparation, timely response, planning and allocation of resources (Uriel Rosenthal, 1991). Steven Fink believes that crisis management generally consists of four types of activities: prevention (prevention), preparation (preparedness), response (response), and recovery (recovery). Public health crisis management is the prevention, preparation, response and recovery work to prevent and control various public health emergencies and unite the disease control and control centers, public hospitals and social forces (Steven Fink, 2002). Boin believes that there are three stages in crisis management: first, preparation. Considering the unknown situation, the organization prepares in advance and plans how to obtain resources and support; second, respond. Crisis decision makers should make appropriate decisions under uncertain threats and time pressure, and ensure that decisions can be implemented smoothly and correctly; third, recovery. Crisis managers need to repair the damage caused by the crisis, and comprehensively analyze the whole process of the crisis, and learn lessons to prevent the crisis from happening again 3 (Boin, 2004). According to Mitroff et al., the three stages of crisis management are: before (before), during (during) and after (after). In the pre-event phase, the advance action (proactive) stage, the main task of crisis management is monitoring and early warning. Response skills training for the vulnerabilities, strengths and weaknesses of organizational crises; in the response (reactive) phase, the main task of crisis management is scientific response. The organization should use its own resources and ability to resolve the crisis, restore the normal operation of the organization, and minimize the loss of life and property caused by the crisis; in the post stage, the feedback (preactive) stage, the main work of crisis management is to summarize experience. Use the latest science and technology to summarize the whole process of the crisis, and constantly improve the original bad part to meet the next challenge (Mitroff, 2004). In terms of crisis prevention, Michael Regester proposed in Crisis Management that organizations should prepare for a crisis and have a correct and positive attitude towards the crisis. In ordinary times, the potential crisis forms of the organization should be classified, the guidelines and policies for crisis prevention should be formulated, and specific strategies and tactics should be formulated for dealing with each potential crisis. Crisis crisis align the organization of s organization with public expectations (Michael'Regester, 1995). Norman believes that departments with a clear business philosophy before the crisis tend to handle the crisis problem best (Norman R: Augustine, 2004).

In terms of public health crisis response, Gubler DJ analyzed dengue outbreaks in the last years of the 20th century and argued that emergency management approaches and strategies should be applied to address special events (Gubler D J, 2002). Haffajee R believes that emergency management is to study risk tolerance and risk response measures, and to address the hazards arising from risk (Haffajee R, 2014). Passi D believes that the construction of emergency management system, the first requires the government to have the ability to respond in time, and establish a set of emergency response system that can adapt to public health emergencies, so as to reduce the impact of the event on the society and the public, and enhance the efficiency and quality of emergency response (Passi D,2017).

As of December 2020, on the CNKI retrieval public hospital crisis management literature 90, less content, most of the focus on medical disputes, doctor-patient relationship, financial risk, human resources, but the COVID-19 outbreak of emergency management research, not formed a system of hospital with industry characteristics of emergency management research.

Due to the special epidemic situation this year, there is a separate window opened on CNKI: COVID-19 (COVID-19) Open Access (OA) Online-First Publishing of Research Papers on COVID-19). By December 2020, 5,888 documents have been published, including 4,341 journals and 1,547 journals of the Chinese Medical Association. Large departments are responsible for clinical research, pharmacy research, guidelines, and vaccine research. Among them, there are 415 hospital management articles and 51 emergency management articles. Of these 51 articles, only 11 studied the emergency prevention and control work in public hospitals, and the others were all about human resources, nursing, and other aspects. There are relatively few relevant materials to study the emergency measures in public hospitals. The quality of the 11 articles on the emergency management of public hospitals under COVID-19 is very high, including Hubei Province, Guangdong Province, Henan Province, some where the epidemic was started, and some provinces in epidemic prevention and control. There is no literature on the prevention and control measures in public hospitals in Jiangsu Province.

In the face of public health emergencies of public hospitals, how to carry out the prevention and control work scientifically and effectively under the background of the epidemic is the biggest test for public hospitals at the present stage. Our current public health crisis management research is mostly fever clinic, nursing work and pharmacy window small details, only less of the article studies the whole public hospital crisis management, at the same time, combined with different scenarios of related practice, to achieve medical staff of epidemic emergency disposal ability of promotion target, as shown in figure 1. In the prevention and control of COVID-19 in 2020, we can see that public hospitals play a huge role, but also because the theoretical research of public health crisis management in China started late and has few related studies, there is still a large space for development in order to create a perfect public health crisis management system in the future.



Figure 1 Emergency drill for COVID-19 outbreak

3.0 Method

3.1 Y COVID-19 crisis management measures in public hospitals

People’s public Hospital is a public comprehensive third-class A hospital. Founded in 1960, it currently has two hospitals in the east and west, with integrated management, with 36 wards and 1,600 approved beds. At present, the hospital has 48 first-level clinical specialties, 46 second-level clinical specialties and 9 third-level clinical specialties. People’s public hospitals actively invest in the reform of public hospitals and actively respond to the construction requirements of hierarchical diagnosis and treatment. As a third-class A general hospital, it has led 20 medical institutions to form a medical consortium. As a provincial comprehensive public hospital, People’s public hospital always puts people's health in the most important strategic position, and always remembers that social public welfare is the first requirement. In the future, under the direct leadership of University, People’s public Hospital will continue to optimize its health services and accelerate the construction of a healthy China.

Under the direct leadership of the health administration department of Beijing, People’s public hospital carried out emergency rescue work of various public health emergencies. In line with the spirit of responsible for people's lives and property, according to the first rescue, rescue, first control, disposal after the guiding ideology, follow the "all patient-centered, rapid response, unified command, grading, self-rescue combined with social rescue" the basic principle, give full play to the role in emergency public health emergency rescue, timely and proper disposal of sudden public health events, try to reduce casualties and property losses. In terms of organizational structure, People’s public hospital has formed an anti-epidemic structure with the leadership of the emergency work headquarters as the main part and eight specific working groups for multiple participation:

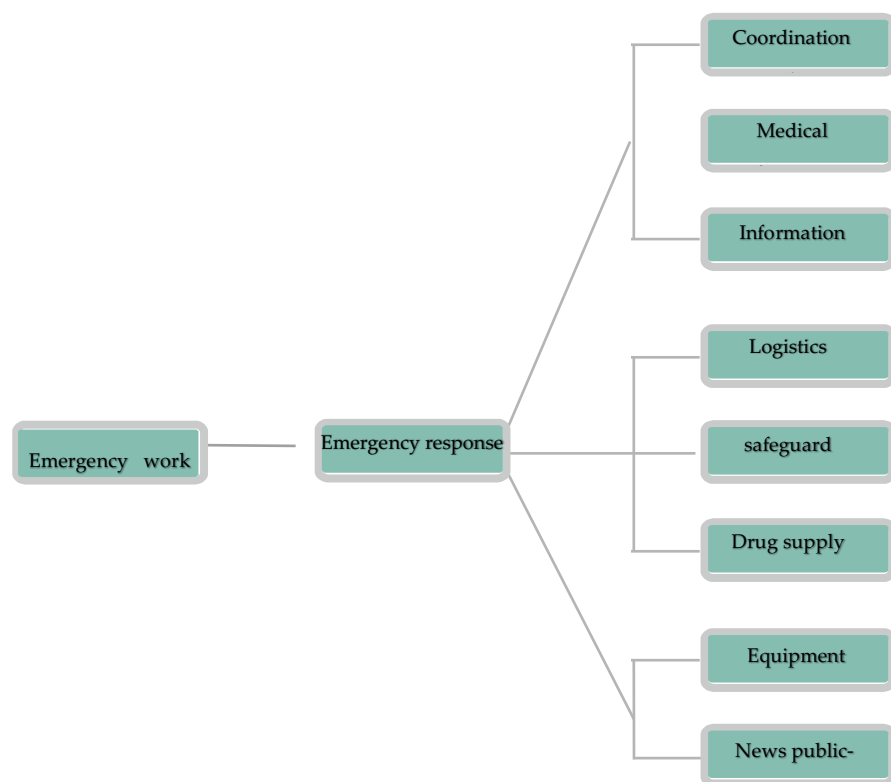


Figure 2 Organization structure diagram of emergency management

According to the categories of sudden public health events, the departments in charge shall formulate corresponding monitoring plans and organize the implementation of a scientific, sensitive and accurate monitoring system, and the implementation personnel shall conduct timely scientific analysis and evaluation of the monitoring data. All departments and individuals under the hospital have the obligation to report the public health emergency and the possible consequences of the hospital when discovering public health incidents, and have the right to report to the departments and individuals who fail to perform the duties of emergency handling in accordance with the provisions.

Sudden public health event emergency handling in charge of the department should carefully study their respective in charge of the most likely scope of sudden public health events, estimate may happen, to formulate countermeasures should be taken, make training plan, training of relevant personnel, and evaluate the training results, continuous improvement of each measure. Training should be a full range of full-staff training. The departments in charge of emergency handling of sudden public health events shall take all kinds of personnel at all levels (including property management personnel), and adopt various forms of training, covering the monitoring and early warning, identification, emergency disposal technology, group and individual protection and on-site treatment of all kinds of sudden public health events. The departments in charge of emergency handling of sudden public health events shall formulate relevant plans respectively according to the responsibilities and obligations of each responsible person in the emergency handling work, and clarify the scope of their responsibilities, coordination objects, main countermeasures, acting steps, contact information, etc. The simulation drill is carried out 1-2 times a year according to the specific situation of each department. The headquarters for emergency handling of public health emergencies shall formulate and implement the simulation exercise plan. Through practical drill, simulation situation, technical training and other ways to improve the emergency response ability of the members of the organization, and train an emergency team that can fight hard.

3.2 Establish an epidemic emergency management agency

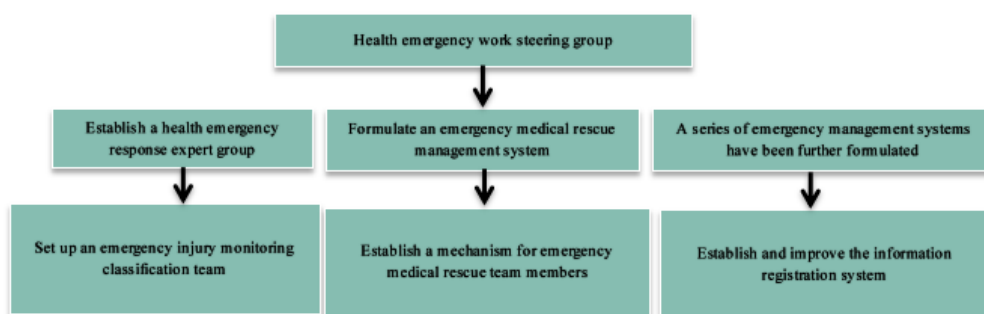


Figure 3 Epidemic emergency management organization diagram

In the early stage of COVID-19, People’s public hospitals quickly adjusted the leading group of health emergency work and formulated corresponding job responsibilities. The president is the group leader, the office is in the emergency office, the emergency office is equipped with I personnel. In the first step, the health emergency expert group, emergency medical rescue team and other health emergency medical rescue command and working institutions, as well as emergency sites for the injured and sick. Second, the management system of the municipal emergency medical rescue base has been established, and the team member selection mechanism has been established. Third, the emergency management system, plan management system, emergency medical rescue team management, training and drill system and summary and evaluation system were formulated,

including on-duty, information report, response, on-site disposal, and hospital treatment. Establish and improve the information reporting system, standardize the scope, methods, procedures and content of the report, and timely report and standardize the implementation of emergency medical rescue after emergencies occur. At present, People's public hospital is initially equipped with the emergency expansion of emergency mobile beds, emergency operation and other emergency medical treatment for emergencies, which can quickly and effectively do the hospital treatment of the injured and patients.

3.3 In-hospital training for epidemic prevention and control

People's public hospitals conducted two large-scale training sessions on COVID-19 prevention and control in combination with live streaming and on-site teaching. The Hospital Infection Management Office has compiled a number of hospital infection prevention and control procedures and protection operation specification manuals, and conducted stratified training for medical personnel, so that they can skillfully master the knowledge, methods and skills of prevention and control of novel coronavirus infection. The main contents of the epidemic include the development trend of COVID-19, epidemiological characteristics, clinical manifestations, diagnostic criteria, treatment principles, pre-examination and triage, response strategies, use of protective masks, workflow of protective clothing, treatment of medical management, etc. The object of training is all the staff of the hospital, including property management personnel. The training requires the attention of all medical staff to strengthen self-protection and prevent nosocomial infection. According to the COVID-19 diagnosis and treatment plan continuously updated and released by the National Health Commission, the experts from the emergency rescue team organized by People's public hospital have learned and mastered the latest knowledge points. After the meeting, the training trained the whole staff and continuously consolidated through the online examination. Only through continuous publicity and education, can scientific and precise prevention and control, stop the spread of novel coronavirus, and ultimately protect the safety of people's lives and property, and minimize the losses.

Table 1 Table of epidemic knowledge training in 2020

training time	Training form	Training content	Training object
On January 22,2020	Collective training	Policy interpretation and work deployment of COVID-19	All medical staff
On January 29,2020	Conference room discussion	Y is currently treating novel coronavirus pneumonia in public hospitals How to better give full play to the advantages of TCM	Emergency rescue medical team
On January 31,2020	Concentrated training	Compilation and learning of important documents related to COVID-19 Report of COVID-19 prevention and control and current workflow description	All medical staff

3.4 Additional medical personnel to support the front line

On January 22,2020, People's public Hospital began to mobilize the initiative, calling on the medical staff of the hospital to promote the professional spirit, play the role of the general Party branch and the Party branch as a battle fortress and the vanguard and exemplary role of party members, and mobilize and organize medical

staff to volunteer for the prevention and control of COVID-19. On the same day, 335 medical workers volunteered to register. All functional departments, clinical and medical technology departments and volunteers have taken urgent action and devoted themselves to the "people's war" against the epidemic. Since the outbreak of COVID-19, People's public hospitals have actively responded to the decisions and arrangements of the CPC Central Committee and the State Council, and dispatched 46 members of four batches of medical teams to support the medical treatment work in Hubei Province and Wuhan City. At the same time, a large number of medical personnel were dispatched to participate in fever clinics, centralized medical observation wards, pre-examination and triage, and prevention and control of hospital infection. The following table shows the list of medical staff of People's public hospital supporting Wuhan and Municipal Infectious Disease hospitals:

Table 2 External support table in 2020

Set up a medical team	Time	key personnel
The first batch of medical teams to aid Hubei	2020.1.2 5	Following the notice of the provincial Health Commission, the group sent Zheng Qingbin, Wu Tianzi, Zhang Yang, Xu Siyao, Long Dan and Wei Qing to participate in the Jiangsu medical team to aid Hubei Province
The second batch of medical teams were set up to assist Hubei province	2020.2.2	Following the notice of the Provincial Health Commission, the group sent Shao Xiangrong and Li Juanjuan to join the medical team of Jiangsu Province to support the treatment of critically ill patients in Hubei province
The fourth batch of medical teams were set up to assist Hubei province	2020.2.1 3	Following the notice of the medical treatment team of the Prevention and Control Commission of the State Council, 6 doctors and 24 nurses were appointed to carry out medical rescue tasks in Wuhan

3.5 Nucleic acid testing and vaccination

Since the outbreak of COVID-19, People's public hospital leaders immediately organize relevant department personnel to the function and layout of the central laboratory, actively create conditions for the will be coronavirus nucleic acid test project, after the superior approval acceptance routine will be coronavirus nucleic acid detection, every day can more efficiently help clinical departments screening patients. Those with fever, respiratory symptoms or diarrhea and other gastrointestinal symptoms within 14 days shall be sent for investigation and diagnosis in time. At the same time, all the relevant potential risk personnel (including the medical personnel contacted by the hospital) have been "fully tested" for nucleic acid testing.

According to the data of the nucleic acid laboratory of People's public hospital, the hospital provided the novel coronavirus nucleic acid test from March 2020, and a total of 20,334 novel coronavirus nucleic acid samples were tested from January to November 2020, and all the results were negative.

Table 3 Novel Coronavirus nucleic acid testing in 2020

Time	East District Outpatient (person)	Eastern District inpatient (person)	Western Hospital outpatients (human)	Inpatient in western Hospital (person)
In July, 2020	760	1570	1290	2470
In August, 2020	703	1531	1428	2327
In September, 2020	1456	1708	2643	2448

According to the data of the nucleic acid laboratory of People's public hospital, the hospital provided novel coronavirus nucleic acid antibody testing in September 2020, and a total of 5,682 novel coronavirus nucleic acid antibody samples were tested from January to November 2020, and all the results were negative.

4.0 Results

4.1 Weak crisis awareness

Compared with developed countries, China's crisis awareness is relatively weak, the social vigilance is poor, and the masses generally lack the awareness and ability to save themselves. Although always facing the threat of infectious diseases, but the construction of the public health system lags behind the level of economic development. The primary problem of public health crisis in Chinese public hospitals is that the crisis warning and identification are not timely enough. Managers of public hospitals have not paid attention to crisis management for a long time, and ordinary medical staff also think that crisis management is the work of hospital managers, which leads to long-term disregard of all people to the potential crisis factors and even conniving at their development. The emergence of COVID-19 has raised many potential problems, etc. For example, many medical workers do not wear masks correctly, some patients hide their illness or even go to public places when they are infected, and they do not know how to correctly protect specific infectious diseases. Such problems all show that managers' lack of attention to crisis management leads to the serious lack of health education work.

In the second half of 2020, with the basic stability of the epidemic in China, medical workers have relaxed their awareness of prevention and control. According to the inspection of ¥ public hospitals in the fourth quarter of 2020, doctors gathered in the treatment area, and there was an irregular wearing of masks. In winter, the number of patients increases, and the awareness of prevention and control is weak. Patients gather in outpatient areas, medical examination areas and inpatient wards, and there is a non-standard wearing of masks. All these problems show that due to the long-term epidemic prevention and control work, different people in different departments have different degrees of paralysis, lax and fluke mentality.

4.2 Lack of ability of crisis management personnel

The COVID-19 outbreak has also shown a lack of competence for crisis managers. In the SARS epidemic in 2003, a technical team led by Zhong Nanshan and a decision-making team led by Zhang Dejiang brought the crisis response work in Guangdong province to the forefront of the country. In 2020, the technical team led by Zhang Wenhong has brought Shanghai's crisis response work to the forefront of the country. After the outbreak of the epidemic, the managers of public hospitals should pay close attention to the latest information of the epidemic, fully realize the social responsibility of public hospitals in dealing with the crisis, and be prepared in

a planned and prepared way. Before the superior administration gives clear opinions, specific protection decisions should be made in advance based on the limited information.

In order to improve the professional level of emergency management, the hospital should also improve the professional and technical skills of the management personnel, especially the management personnel responsible for the decision-making and command of the crisis management center. The reason for the failure of many important emergency response efforts in 2020 is also the unprofessional emergency command organization. Only a standardized emergency command organization, a stable rescue team and the accumulated emergency management experience can improve the professional level of emergency management of the whole hospital.

4.3 Insufficient investment in health and epidemic prevention funds

In recent years, the living standard of the Chinese people has gradually improved, the economic level has also developed rapidly, and the people's demand for medical services is also increasing, but the construction of the public health system has not kept up. According to the theory of public goods, medical services are quasi-public goods, but disease control is a public product and itself does not produce direct economic benefits, so public hospitals will not invest a lot of resources in the construction of public health. Among all the countries in the world, China's GDP level is among the top in the world, but the resources invested in health are very low. The SARS outbreak in 2003 made governments at all levels see the importance of public health. In fact, the government did increase its investment in public health, but it lacked a sustained and effective investment mechanism. The COVID-19 in 2020 intuitively shows that public health investment in recent years is far from enough. In the early days of the epidemic, medical supplies for emergency treatment, emergency rescue forces and health infrastructure services were seriously lacking, especially masks, protective suits and goggles.

4.4 Lack of humanistic care in emergency training

The COVID-19 outbreak has led to a significant increase in the training volume of medical staff. The contents of the training include national laws, relevant knowledge of epidemic diseases, specific information of infectious diseases, and personal protection knowledge of disinfection and isolation, but there is no training on psychological quality. In fact, on the one hand, medical staff have to participate in more work, on the other hand, because of the uncertainty of the disease has brought great pressure. COVID-19 has tested not only their professional level but also their psychological quality.

Due to the uncertainty of COVID-19, a lot of information will not be disclosed in case of panic. Due to the lack of public information, medical staff and ordinary people are talking in private, and rumors are spreading. In addition, the impact of information from TikTok and other new media has directly affected the mood of medical staff. However, as the epidemic has not yet passed, except for most special departments closed due to the epidemic, most clinical departments have not rest, even if no patients are on standby. In the whole year of 2020, large and small inspection teams kept checking, making the medical staff tightly straighten the string in their minds, and almost no one completely relaxed. In the early days of COVID-19, hospitals neglected the construction of a psychological crisis defense system for medical staff and the psychological support for medical staff.

5.0 Conclusions and Recommendations

5.1 Strengthen crisis awareness

On June 2, 2020, General Secretary Xi Jinping proposed at an expert symposium on COVID-19 that public health emergencies, due to the rapid spread and great social harm, endanger the health and safety of the people and the cornerstone of the country. We must increase the awareness of danger, strengthen the bottom-line thinking, and always guard against risks in the field of public health. Taking Beijing as an example, the process of industrialization and urbanization in Beijing has been significantly accelerated. On the one hand, public health emergencies, natural disasters, accident disasters and social security incidents are frequent and frequent, and the pressure of emergency medical rescue has increased significantly. On the other hand, the system and ability to deal with emergencies are obviously insufficient. Beijing is located in the east of the Yangtze River, with concentrated population, industrial agglomeration, dense transportation and complex climate. It has the risks of natural disasters such as typhoon and rainstorm, as well as accidents and disasters such as production and traffic. There are not only hidden dangers of public health emergencies brought about by acute infectious diseases, but also social instability factors caused by social stability and mass incidents. At the same time, in recent years, 北京 city has undertaken more and more major activities organized and held, with large scale, high specification and long duration, which has increased the pressure of emergency medical rescue to some extent. In the face of the still grim situation, we must always keep a clear mind and take precautions against a rainy day.

5.2 Attach importance to personnel team building

The government is the main body responsible for the establishment of public health emergency rescue teams. People's public hospital plans the health emergency rescue teams according to the requirements of the health authorities, determines the number and scale of emergency rescue teams, promotes the formation of health emergency teams, and improves the skills of medical technicians and emergency command personnel.

For crisis management personnel, especially those involved in crisis management decision-making command and leadership, we must learn and train. Because managers with high quality and professional decision-making ability can make the best decisions in case of public health crisis. In reality, emergencies are often highly uncertain, which requires management decision makers to speculate the possible development of things according to the details, reasonably arrange the proportion of various resources input, and constantly adjust the prevention and control strategies. When a crisis occurs, the management decision makers should always maintain a high degree of flexibility and command authority, and always bring confidence to the people and their comrades in arms to win. The more critical the moment, the more decisive the leadership of the management decision-maker is.

For hospital emergency organizations, standardization must be built. Through the standardized emergency command organization, the internal grouping of the emergency management organization is rationally allocated, and the construction of the emergency management organization is promoted through the annual planned emergency management tasks. Adhere to the principle of combining peacetime and wartime, strengthen training and drills, and improve the experience and ability of emergency rescue teams. Each clinical department needs to ensure enough spare time for the emergency rescue team members to participate in the learning and training and various forms of drills, and continuously increase the professional technical level. While standardizing the division of responsibilities of each professional and technical personnel, the hospital emergency organization

platform formulates the corresponding reward and punishment system and strictly manages it. Finally, cultivate the emergency treatment culture of the hospital, and improve the political awareness and team spirit of each team member.

5.3 Strengthen emergency drills

As for the emergency drill, relevant departments shall be organized to take emergency preparedness as the main task of strengthening emergency management, and carry out emergency preparedness work from the aspects of emergency plan drill, emergency rescue team, emergency material reserve and emergency duty duty. According to the characteristics and hazards of possible emergencies, carry out risk identification and assessment, organize drills, and effectively strengthen and standardize the work of emergency preparedness. Through the drill, on the one hand, we can find the unconsidered links and unexpected obstacles in the plan. After the drill, the inappropriate parts of the hospital emergency plan should be timely improved, the details of each disposal process should be analyzed, and the shortcomings should be improved to seek solutions so as to improve the adequacy of emergency preparedness. On the other hand, it can improve the sensitivity of the emergency rescue team to the public health crisis, get familiar with the process of starting the emergency mechanism and the content of the emergency plan, and improve the tacit understanding of the members of the emergency response team. When the real public health crisis comes, the team members can be calm and calm. The emergency organization immediately activated the emergency response mechanism, deployed personnel, finance and materials in the first time, and cooperated with the standardized emergency plan to quickly provide effective and scientific emergency treatment services.

5.4 Increase funding input and construction efforts

According to data released on the Chinese Government website, the total health expenditure in China is expected to reach 6,519.59 billion yuan in 2019, the per capita health expenditure is 4,656.7 yuan, and the total health expenditure accounts for 6.6% of GDP. The total health cost of GDP reached 8.7% in 1980. According to the public good theory, disease control is the public good. Chen Zhu, former minister of health, said that public hospitals are set up to meet the most basic medical needs of the people. In order to ensure the public welfare of medical services, it is necessary to change the situation that hospitals rely on income generation to survive, so as to ensure that the masses have the right to treat serious diseases, difficult diseases and serious diseases. In the case of the national new medical reform, it is also proposed that in order to support the construction and development of hospitals, it is necessary to increase the investment of public hospitals. Only when public hospitals do not have to worry about survival or development, can they better perform their social functions.

5.5 Strengthen psychological intervention

For psychological intervention for patients, there are generally professional psychological intervention personnel, but People's public hospital does not have professional psychologists, so a clinical psychological intervention team can only be established. In the usual training and drill, professional psychologists can be invited to train clinical medical staff on psychological intervention knowledge and skills. The hospital sets up psychological intervention teams to provide effective and timely psychological treatment for patients in wartime. According to relevant data, the best time for psychological intervention is within 48 hours of an emergency, so the establishment of psychological intervention group is the lowest cost and the best effective program. In terms of psychological intervention, in addition to face-to-face communication, psychological telephone consultation and

wechat communication can also be used, which not only puts patients in a relaxed environment but also reduces the risk of infection and improves efficiency.

For frontline medical workers, they can be encouraged through typical publicity, information disclosure and psychological counseling, so as to handle them calmly and calmly. Arrange the rest activities appropriately during the rest time to maintain a rational and optimistic attitude. For medical workers who do not participate in the frontline fight against the epidemic, we should strengthen group publicity and education, avoid too much contempt and prevent emotional excitement, provide effective communication means during rest, and arrange part-time activities. In the context of the epidemic, all medical staff are highly nervous and must arrange sufficient rest time. When the epidemic is stable, they must arrange rotating leave. Only by ensuring sufficient energy can we maintain a good attitude in wartime.

References:

- Boin, A. (2004). Lessons from crisis research. *International studies review*, 6(1), 165-194.
- Dark autumn, (2004), From Crisis Management to Problem Management. Market Weekly (New Logistics), (043): 40-41.
- Guo Lin, (2020), Research on human resource management in public hospitals based on the Healthy China strategy, *Office business*, (17): 142-143.
- Hu Baijing. (2009). China Crisis Management Report 2008-2009, Beijing: China Renmin University Press.
- LAN Yingchun, Chen Li, (2008), Research on the form of public welfare realization in public hospitals, *Health Economy of China*, (27): page 9-12.
- Li Xinyun, Gao Hongxia, Fang Pengqian. (2020), Crisis management capacity building in public hospitals under the COVID-19 epidemic, 37 (4): 245-247.
- Mitroff, I. I., Alpaslan, M. C., & Green, S. E. (2004). Crises as ill-structured messes. *International Studies Review*, 6(1), 175-182.
- Norman R Augustine et al. (2001). Crisis management. Beijing New Huaxin Commercial Risk Management Co., Ltd. Beijing: China Renmin University Press.
- Pan Chenggang. Research on crisis Management in Public Hospitals in China -Take Zhongnan Hospital of Wuhan University as an example. *Health Industry in China*, 2015 (02).
- Rosenthal, U. (2003). September 11: Public administration and the study of crises and crisis management. *Administration & Society*, 35(2), 129-143.
- Rosenthal, U., & Pijnenburg, B. (Eds.). (1991). *Crisis management and decision making: Simulation oriented scenarios*. Springer Science & Business Media.
- Shan Chunchang, Xue Lan. (2012). Introduction to Emergency Management- -Theory and Practice [M]. Higher Education Press,.
- Tang Shikui. (2020), Emergency management measures and Countermeasures for a hospital in Chongqing in a COVID-19 Public Health Emergency. *Theoretical observation*, (4): 14-16.
- Xue LAN, Zhang Qiang, (2003), Zhong Kaibin. Crisis Management: Challenges facing China during the Transition Period, *China Soft Science*, (4): 6-12.
- Xue, L., Zhang, Q., & Zhong, K. B. (2003). *Crisis management in China* (pp. 32-35). Beijing: Tsinghua Press.

Zhang Hao, Chen Shan Spring, Wang Xiaohe, (2020), Research on the integrated governance strategies of public hospitals in response to sudden outbreaks based on PCIC. *Hospital Management in China*,40 (7): 9-13.

Zhong Kaibin, (2020), Evolutionary trajectory of China's emergency management system: an analytical framework, *Journal of Xinjiang Normal University (Philosophy and Social Sciences edition)*, 41 (06): 73-89.