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Research on the Influence of Prevention Practice on Emergency Management Strategy in COVID-19

-- Comparative Analysis and Research of Chinese Mainland and Taiwan Province's Response to COVID-19

Dacheng Li

School of Music, National Taiwan University of Arts, Xin Bei, Taiwan, China.

Abstract: After the outbreak of COVID-19, patients with respiratory infectious diseases are facing a surge, and medical staff in non-respiratory, infectious, severe and other departments are not strong in differential diagnosis of infectious diseases, and protective measures are not in place, resulting in nosocomial infection. According to the influence of COVID-19's preventive practice on emergency management strategies, this paper analyzes and studies the response of Chinese mainland and Taiwan Province to COVID-19 respectively. The research shows that before the formal deployment of each link, Taiwan Province organizes experts to discuss collectively to form a unified opinion and then implement it. To guide the diagnosis and treatment of patients in fever clinic and isolated observation ward. At the same time, the responsibilities of each group are clear. By formulating the prevention and control process, it is ensured that the suspected patients will go to the fever clinic for treatment at the first time, and all examinations and treatments will be completed in the fever clinic area. On the premise of ensuring fire safety requirements, Chinese mainland took the lead in launching pre-examination and triage department for fever among medical institutions in the city. The specific method is to take the measure of "sealing the hospital", only keep the main entrance of the hospital gate as the only passage, and put the fever pre-examination and triage place located in the outpatient hall in the daily state in front of the main entrance and exit.

Keywords: COVID-19; Preventive practice; Emergency management strategy.

1. Introduction

At the end of December, 2019, Wuhan Municipal Health and Wellness Committee issued a briefing on the pneumonia epidemic, officially announcing the beginning of a pneumonia epidemic with novel coronavirus infection that then quickly spread throughout the country. With the explosive spread of the epidemic and the sharp increase in the number of infected cases [1]. At the beginning of the outbreak of COVID-19, Taiwan Province was going through the election of leaders. On the one hand, the Democratic Progressive Party's victory means that the Democratic Progressive Party has finally fought a "turnaround" after its defeat in the "Nine in One" election in November 2018, and has once again become a real political party in Taiwan Province, which needs to take full responsibility for the quality of cross-strait relations. After the outbreak of COVID-19, patients with respiratory infectious diseases are facing a surge, and medical staff in non-respiratory, infectious, severe and other departments are not strong in differential diagnosis of infectious diseases, and protective measures are not in place, resulting in nosocomial infections [2-3]. The total number of samples screened in Taiwan Province can't even reach the level of one day in many areas. Public opinion on the island joked that "there is no diagnosis without screening", questioning the official concealment of the epidemic. Facing the sudden and severe NCP epidemic situation, how to do a good job in emergency management of epidemic prevention and control in general hospitals is bound to face great challenges for hospital managers and their emergency management systems.

At the beginning of the epidemic situation in COVID-19, there were some problems, such as unclear organizational structure of emergency management, unreasonable emergency plan, nonstandard system process, inadequate pre-examination and triage, unclear division of labor among departments, weak awareness of protection, etc. In addition, some general hospitals did not set up standardized fever clinics, or did not have independent infectious areas, and failed to start the pre-mechanism and take corresponding prevention and control measures at the first time, which led to the spread of the epidemic situation and the infection of medical staff. At the same time, immediately start the procurement and reserve of protective materials, first aid equipment, inspection equipment and special drugs for treatment, implement the general scheduling of prevention and control materials in the whole hospital, and form a hospital-wide linkage mechanism, namely, build a strong and efficient organizational guarantee network at the initial stage [4]. At present, cross-strait exchanges are moving towards gradual recovery and expansion. There are deficiencies in the prevention and control of COVID-19 epidemic in Taiwan Province, which will have many adverse effects on cross-strait exchanges, so we should keep a high degree of vigilance. There are loopholes in external epidemic prevention and control in Taiwan Province. Recently, the outbreak of COVID-19 in India is out of control, and the Indian COVID-19 virus is spreading internationally. Many countries and regions have banned air navigation in India, and prohibited people with a history of living in India from entering or conducting centralized isolation. Some "Taiwan independence" groups on the wing of the DPP will also hope that after the DPP comes to power again, it will stop hiding under the "jacket" of the Republic of China or Taiwan

Province of the Republic of China and take substantial steps towards "Taiwan independence".

2. Research on the impact of COVID-19 prevention practice on emergency management strategies in Taiwan

2.1. Prevention and control of COVID-19 in Taiwan and existing problems

Taiwanese COVID-19 has spread in the community. With the new cases of COVID-19 in Taiwan reaching new highs in succession and appearing in many counties and cities, Chen Shizhong, commander of the Taiwan epidemic center, admitted for the first time that "the Taiwan epidemic has now entered community infection" [5]. When a patient with abnormal temperature is found, a specially assigned person will directly guide him to the fever clinic to avoid the potential risk of hospital infection caused by the patient entering the clinic hall at will. Since the outbreak of COVID-19 in Taiwan, the epidemic has never stopped. Not only have imported cases from abroad become more severe, but also local cases have changed from sporadic and sporadic cases in the past to cluster infection in Taoyuan hospital, and then to cluster infection in "China Airlines", Novotel Hotel and Yilan amusement park. The epidemic situation on the island is becoming more and more pessimistic.

Ke Wenzhe, chairman of the Taiwan People's Party and mayor of Taipei City, mocked the "reverse osmosis law" and said that he might be the first to be punished by the "reverse osmosis law"; Ma Ying jeou said that the passing of the "Anti infiltration Law" will cause unimaginable harm to Taiwan, and Taiwan may return to the martial law period. However, Taiwan has not yet banned navigation to India, and only since May 4 did it begin to isolate those with a history of Indian sojourn. Therefore, before May 4, Indian COVID-19-19 mutant virus can enter the island in a popular way, and after May 4, it can also be introduced into Taiwan through air entry personnel. Ke Wenzhe, chairman of the Taiwan People's Party and mayor of Taipei City, mocked the "reverse osmosis law" and said that he might be the first to be punished by the "reverse osmosis law"; Ma Ying jeou said that the passing of the "Anti infiltration Law" will cause unimaginable harm to Taiwan, and Taiwan may return to the martial law period.

2.2. Prevention Practice and Emergency Management Strategy of COVID-19 in Taiwan Province

With the deepening understanding of epidemiology and the characteristics of disease progression in COVID-19, scientific prevention and control and precise policy must be made in different stages and positions of epidemic prevention and control, so as to avoid unnecessary excessive prevention and control, limited waste of prevention and control materials and other panic atmosphere. In the early stage of epidemic prevention and control in Taiwan Province, according to the spirit of various documents issued by national, provincial and municipal governments and health and health departments, many management regulations, such as diagnosis and treatment norms, hospital sense prevention and control, were formulated [6]. During the epidemic, less than 40% of the students were restricted from going out, indicating that the scope of activities of the respondents was limited during the epidemic. During the epidemic period, the longest continuous stay at home days. The survey results are shown in Table 1. 86.36% of the respondents stayed at home for more than 14 days, and the cumulative proportion of more than 6 days was 95.11%. This means that home isolation has influenced people's daily travel arrangements. Home fitness is not only the result of individual's subjective choice, but also constrained by external environment.

Table 1. Survey of living and going out

variable	Option	Number of samples/persons	Account for/%
Home days	< 7 days	49	4.89
	7-15 days	87	8.75
Free access	Be	852	86.39
	No	592	60.07
Do you insist on studying	Be	394	39.95
	No	870	88.32

Before the formal deployment of each link, Taiwan Province organized experts to have a collective discussion to form a unified opinion before implementation. To guide the diagnosis and treatment of patients in fever clinic and isolated observation ward. At the same time, the responsibilities of each group are clear. By formulating the prevention and control process, the suspected patients are ensured to go to the fever clinic at the first time, and all examinations and treatments are completed in the fever clinic area; For highly suspected patients, after consultation by the expert group, they will be docked by special personnel and transported to infectious disease hospital for isolation treatment; Strict implementation of the hospital entrance, outpatient nurse station, accepts the doctor three-level screening triage process, to avoid nosocomial infection to the maximum extent.

3. Research on the impact of COVID-19 prevention practices on emergency management strategies in Chinese Mainland

3.1. Major challenges faced by the current hospital emergency management system

At present, there are still shortcomings in the prevention and control system of emerging infectious diseases in Chinese Mainland, and the response capacity cannot fully meet the needs of the current complex and severe epidemic situation. As a new major infectious disease, COVID-19 has brought great difficulties to the prevention, control and treatment of hospitals because of its strong infectivity, fast transmission speed and high mortality rate of critically ill patients [7-8]. In terms of the causes of patient aggregation, in addition to the concentration of patients' visit time, long waiting time will cause patients to stay in the hospital for a long time, which is also easy to lead to personnel aggregation, which is not conducive to the control of infectious diseases. Moreover, the stay time is too long, which also affects the satisfaction rate of patients and increases the physical burden and time expenditure of patients.

In terms of treating critically ill patients, it is exposed that the technical strength and equipment configuration of the hospital's severe medicine department are insufficient. The daily medical room, laboratory and imaging examination room do not meet the requirements for the admission and

examination of infectious disease patients, and also increase the risk of hospital infection. Under the epidemic situation, the screening of inpatients must be strictly controlled for non-emergency patients. Once suspected patients are admitted to the ward, they will inevitably affect other pregnant women, newborns and medical staff, and the consequences will be very serious. Therefore, the entrance to the ward should be strictly controlled. The infectious disease monitoring system of the hospital lacks case data monitoring of fever outpatient department, infectious diseases department, respiratory department, pediatrics department, intensive care unit and other medical technology departments. It lacks linkage with the laboratory department, imaging department and other medical technology departments, and cannot realize early epidemic management through information means [9].

3.2. Practice of emergency management in epidemic prevention and control in COVID-19

Since the outbreak of COVID-19, the government has not fully implemented emergency management measures in the incubation period and the formation period of the epidemic. From the discovery of the first case to the large-scale spread, hospitals and local governments have taken more routine medical rescue and prevention measures, failing to discover and control the epidemic in time, thus losing the best time for prevention and control of the epidemic [10]. However, during the formation of COVID-19, our government realized the seriousness of the problem, and the expert group began to intervene and crack the gene sequence of Covid-19. After the outbreak of the epidemic, the government began to implement emergency management. The epidemic situation in COVID-19 and government management measures are shown in Figure 1.

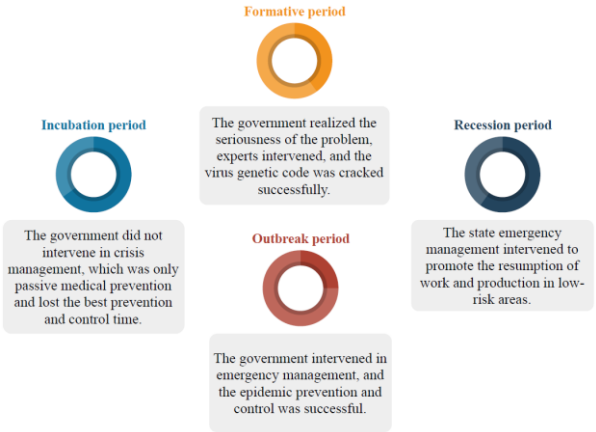


Figure 1. The government began to implement the emergency management architecture

Through the above-mentioned innovative measures, combined with the traditional epidemic prevention and control measures, there were no cases of infection in hospital patients and medical staff, and all clinical work was carried out in an orderly manner, and phased results were achieved. Based on the premise of ensuring fire safety requirements, the initiative of pre-fever pre-examination and triage office was first introduced in medical institutions of the whole city. The concrete approach is to take the measure of "sealing off the hospital", temporarily block other entrances and exits of the hospital area with road isolation guardrails at the periphery of the main building of the hospital, keep only the main entrance of the hospital area gate as the only passage, and put the fever pre-examination and triage place located in the outpatient hall in the daily state in front of the main entrance and exit. We believe that with the continuous development and in-depth application of scientific research and technology, we should make full use of platforms such as Nail and WeChat to set up an instant office platform, quickly complete the epidemic information notification and hold regular meetings on prevention and control, promote the process of relevant management regulations for cross-disciplinary treatment of patients, integrate and downsize inpatient wards, unify the "saved" clinical medical staff by the medical department and nursing department, and enrich them to fever clinics and isolated observation wards, so as to ensure the adequacy of their medical human resources, and at the same time ensure the reasonable rotation of medical staff. Constantly improving the experience of epidemic prevention and control work in time will surely better protect people's life safety and health, and ensure the smooth progress of social and economic development.

4. Conclusions

With the joint efforts of medical personnel and the people on both sides of the Straits, the epidemic situation in China, including Taiwan, has been remarkably stable since May, and most of the occasional increases have been imported from abroad. However, due to the various performances of the DPP authorities during the epidemic, it may be difficult for both sides to return to the past. This paper analyzes and studies the impact of COVID-19 prevention practice on emergency management strategies and the comparison between Chinese Mainland and COVID-19 response in Taiwan. The research shows that before the formal deployment of each link, Taiwan organizes experts to discuss collectively and forms unified opinions before implementation. To guide the diagnosis and treatment of patients in fever clinics and isolation wards. At the same time, the responsibilities of each group are clear. By formulating the prevention and control process, it is ensured that the suspected patients can go to the fever clinic for rescue at the first time and complete all examinations and treatments in the fever clinic area. On the premise of ensuring fire safety, Chinese Mainland took the lead in introducing prescreening and triage offices for fever among medical institutions in the city. The specific approach is to take the measure of "closing the hospital", temporarily block other entrances and exits in the hospital area with road barriers around the main building of the hospital, and only retain the main entrance of the hospital area as the only channel, and put the fever pre-examination triage place in the outpatient hall in front of the main entrance and exit under daily conditions. In a word, establish an emergency management assessment mechanism to improve the response speed and rescue level of medical emergency rescue according to the characteristics of public emergencies, so as to effectively respond to public emergencies.

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