

## **Discussion on the Development Trend of Popular Science Model Emergency Response Concerning the Sudden Natural Disasters**

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**Abstract:** The incidence of sudden natural disasters in my country ranks at the forefront of the world, especially in recent years, the frequent occurrence of various natural disasters has caused greater impact on society. Compared with European and American countries, the public's ability to fight disasters in my country is low, so it is urgent to strengthen the level of science education for sudden natural disasters. The article is mainly based on the relevant research on emergency natural disaster emergency science and summarizes its development trend, and analyzes how to effectively carry out emergency natural disaster emergency science education, so that the people can master more accurate, scientific and systematic knowledge of disaster prevention and relief, Reduce the impact of sudden natural disasters on society.

### **Introduction:**

The Sudden natural disasters here refers to all kinds of natural disasters that suddenly appear, but the common disasters include earthquakes, debris flows, typhoons, tsunamis, and landslides. After the emergence of sudden natural disasters, it is necessary to carry out emergency science popularization work for the surrounding residents as soon as possible, so as to solve various problems caused by sudden natural disasters [1]. If it is not carried out in time, it may cause the emergency science work to lose its due role, cause the impact of sudden natural disasters to increase, and pose a greater threat to the safety of people's lives and property. Emergency science is mainly for general education on the knowledge of sudden natural disasters, which has high timeliness [2]. Sudden natural disasters have occurred frequently in my country in recent years, and many people do not know how to respond in the first place. Therefore, it is necessary to strengthen emergency science popularization and let the masses master how to deal with disasters.

## **1. Status of Research on Science Popularization Related To Sudden Natural Disasters**

### **1.1 China**

The emergency science popularization work for sudden natural disasters in China has a short duration and still has many shortcomings, mainly to carry out emergency science popularization work on various major disaster anniversaries or event days. This method is relatively lagging, and in many cases, emergency science popularization work Mainly to cope with the investigation of the higher-level departments, leading to emergency science popularized in the form [3]. This has caused many people to lack public safety awareness, do not know how to avoid risks, do not know how to deal with and respond to sudden natural disasters, and have not experienced self-help or mutual rescue in simulated scenarios. Therefore, many scholars in our country believe that it is necessary to popularize the knowledge of evacuation, self-rescue, mutual rescue, disaster reduction and other knowledge during sudden natural disasters to improve the people's sense of responsibility and safety, and cultivate the people's emergency response capabilities. It can keep calm during natural disasters and reduce the losses caused by sudden natural disasters [4].

## **1.2 America**

The United States is able to better grasp various emergency response capabilities mainly through personal experience. The San Francisco Discovery Center in the United States mainly uses interactive science to learn emergency methods for sudden natural disasters. The popular science method of hands-on research has become an important way for the United States to carry out emergency natural science emergency science.

## **1.3 Japan**

As a region with a high incidence of earthquakes, Japan is the country that attaches the most importance to the knowledge of earthquake evacuation and escape science. Since the beginning of primary school, various disaster prevention knowledge education has been carried out, so that the masses can effectively deal with various sudden natural disasters, especially the knowledge about self-protection and evacuation. The Japanese government has continuously summarized relevant experience in emergency science during many years of research, and has made great progress in disaster prevention and reduction. Japan JST Safety Research Institute has developed a set of emergency simulation system on disaster prevention and mitigation. It can learn various knowledge and methods of disaster prevention and mitigation through simulation exercises, thus reducing various losses caused by sudden natural disasters.

## **2. The Development Trend of Sudden Natural Disaster Emergency Science Model**

### **2.1 Emergency Science Platform**

At present, the emergency science popularization models of various countries are gradually systematized and standardized, which requires continuous integration of existing emergency science resources [5]. First of all, according to the historical occurrence of sudden natural disasters in the region, combined with the actual situation of local communities, rural areas, enterprises and schools, various popular natural disaster emergency science popularization posters and books are distributed, and regular emergency Popular science disaster emergency science knowledge lectures. At the same time, local TV stations can also be used to propagate the popular science knowledge for emergency natural disasters, and broadcast film and television works related to sudden natural disasters, such as "Tangshan Earthquake". Various popular science exhibitions, contests with prizes, and special evenings can be carried out through local cultural centers, libraries, and science and technology museums to propagate popular science for emergency natural disasters from different levels [6]. With the continuous development of modern network technology, you can also use the Internet for emergency science popularization, which is more in line with the characteristics of modern society and allows the masses more ways to learn about disaster prevention and mitigation. In addition, the government should also carry out themed publicity activities at specific times to allow the masses to master various knowledge and skills of self-help and mutual rescue, escape and evacuation, thereby improving the ability to avoid disasters. The local government can establish simulation sites for simulation training, so that the masses can improve their psychological endurance and various knowledge of disaster prevention and mitigation through personal experience. The community should also regularly carry out various popular science disaster emergency science popularization work, mobilize the enthusiasm of the masses in emergency science popularization activities, and continue to improve their emergency response capabilities.

### **2.2 Emergency Science Mode**

Emergency science models are classified according to subject, mechanism, and approach.

#### **(1) The Main Body of Emergency Science**

Emergency science popularization of sudden natural disasters is an important part of public safety management. Therefore, it can be divided into professional organization science, community science, government science, school science, enterprise science and network science according to

different propaganda subjects [7]. Professional organizations usually conduct science by organizing various lectures and special lectures; community science mainly uses community bulletin boards and various selection activities to let community residents learn how to avoid disasters and reduce disasters; government science is mainly carried out on various specific dates Simulation exercises, such as performing earthquake evacuation acts on the Wenchuan Earthquake Memorial Day, so as to master various knowledge of self-rescue and mutual rescue and escape evacuation; corporate science popularization mainly carries out emergency safety education on a regular basis, and posts safety slogans at entrances and exits to ensure the smoothness of escape routes; network Science popularization is mainly to use various websites to carry out emergency science popularization of sudden natural disasters, so as to provide more science popularization channels.

## **(2) Emergency Science Popularization Mechanism**

At present, my country's emergency science popularization mechanism can be divided into three mechanisms: development, integration and distribution. The development model of emergency science is mainly through the cooperation of various societies, research institutes, social organizations and relevant departments to produce various emergency science resources, especially emergency science information related to various biochemical and nuclear radiation. By innovating emergency science popularization forms, new types of emergency science resources are developed [8]. The popular science resource integration mode is mainly to sort out the various existing emergency science resources and classify them according to the type of resources, so that the public can master more emergency science knowledge and skills. The emergency science distribution model mainly produces different promotional materials according to different distribution agencies. For example, schools mainly focus on various safety manuals, posters, and advertisements, while enterprises mainly focus on various leaflets and video materials [9].

## **(3) The Emergency Science Popularization Methods**

The scientific popularization methods for emergency natural disasters in China are mainly divided into cultural venues, book publications, news broadcasts, networks, virtual exercises, etc. Cultural venues mainly include cultural centers, libraries, and science and technology museums. Curiosity and curiosity, so as to learn a variety of disaster prevention and avoidance knowledge; book publications are the use of various books and audio-visual materials for sudden natural disaster emergency science popularization, the current application in our society is more popular; news broadcast is The main way of emergency science popularization for sudden natural disasters, major television stations in China broadcast various emergency science documentaries and film and television works on a specific date every year, so that the public can master more emergency treatment knowledge; network science mainly uses various Websites and social platforms are used to promote emergency treatment knowledge, which is in line with the characteristics of modern society. At the same time, network promotion is not limited by time and place, which improves the flexibility of emergency natural disaster emergency science. Virtual exercises mainly use virtual technology to simulate Scenarios when natural disasters occur, thereby training people's emergency response capabilities [10].

## **3. The Development Trend of Emergency Science Model**

With the rapid development of information technology, China's emergency natural disaster emergency science model will become more modern, digital, and information-based. Emergency science will be carried out through a variety of network platforms, and it will improve The close combination of occurrences, so that the masses understand the importance of disaster prevention and avoidance knowledge and skill learning. From the content point of view, it pays more attention to the relationship between the characteristics of natural disasters and knowledge, combines the traditional science popularization model with various formal education channels, and constantly enriches the dissemination of natural science emergency science knowledge. From a methodological point of view, it is necessary to continuously increase the learning method of

personal experience, so as to penetrate into major schools and enterprises. Therefore, in terms of education objects, students need to be regarded as key education objects, and science popularization and education of vulnerable groups should be concerned. From the main point of view, it is necessary to strengthen the propaganda department among major science popularization subjects, break through a single propaganda model, and form a joint communication mechanism among major institutions, units, and organizations to further improve the effect of sudden natural disaster emergency science.

## Conclusion

At present, China's emergency science education model for sudden natural disasters is still lower than the world level. Therefore, it is necessary to constantly improve the emergency science education system, especially to strengthen students' emergency science education, so as to improve the knowledge and skills of the people in disaster prevention and avoidance. The impact of natural disasters.

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