Based on the Construction of a Smart Management System for Community Epidemic Prevention Volunteers under the Normalization of Epidemic Prevention and Control

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Abstract

Nowadays, the management of the community volunteer team is facing problems such as lack of professionalism and poor organization. Regional governments or communities may incorporate epidemic prevention volunteer management into the smart community management system in the process of exploring smart community epidemic prevention, actively build a smart management system for community epidemic prevention volunteers, accelerate the intelligent construction process of epidemic prevention and control, and effectively respond to the needs of normalized prevention and control work in the post-epidemic era.

Keywords

Volunteer Service for Epidemic Prevention; Smart Epidemic Prevention Community; Community Epidemic Prevention Volunteer Wisdom Management System.

1. Introduction

At present, many scholars have conducted research on the aspects of smart community construction on the issue of community epidemic prevention, which proposes to build a smart community epidemic prevention system to speed up the intelligent process of epidemic prevention and control. However, compared with the people in the community, the management of epidemic prevention volunteers should not be underestimated. Community epidemic prevention volunteer service activities mostly lack institutionalized guarantees, lack of organization of the team and other problems,. Since the community management of the volunteer team is relatively loose, it is difficult to ensure that the maximum play of the auxiliary role of volunteers in epidemic prevention work. How to use the power of science and technology to efficiently, thoroughly and accurately manage the volunteer team has become an important issue in epidemic prevention and control and future urban and rural community governance.

2. Analysis of Epidemic Prevention Volunteer Management Problems

2.1. Not Strongly Organized

Survey data shows that in volunteering to fight the COVID-19 pandemic, participants are mostly individuals who volunteer and apply voluntarily.In the process of organizing and carrying out volunteer service against the epidemic, community organizers did not design a relatively clear organizational system construction plan for volunteers, resulting in a decrease in their service efficiency, mainly manifested in insufficient unity and coordination, poor organizational discipline, and weak cooperation, etc., which is difficult to meet the actual needs of responding to major public health emergencies.

2.2. Low Professionalism

In the emergency volunteer service to fight the epidemic, the vast majority of key positions mainly rely on volunteers with medical backgrounds, and other volunteers have not been able to play their full role due to the lack of professional basic skills. There are survey studies showing that most volunteers lack professional knowledge and skills, and lack professional guidance from higher-level departments such as communities and streets, resulting in volunteers having more than enough in the community epidemic prevention and control action practice center and difficult to meet service needs.

3. Existing Experience in Smart Epidemic Prevention

3.1. Big Data Identification and Analysis

3.1.1. Contactless Face Recognition System

In 2021, the first Smart Epidemic Prevention platform developed by Guangxi Province was officially put into use in Qingxiu District, Nanning City, and was located in many key places such as stations, schools, and communities. Capturing face information through the camera and obtaining the body temperature, health code and vaccination status of the detected person in the form of non-contact face temperature measurement, the system can send the detected person's communication itinerary and health status to the background of the Smart Epidemic Prevention platform as soon as possible, so that the governor can grasp the entering and leaving the public place personnel's health information at the first time. With the function of multi-code joint inspection, this system can help to improve the precision level of epidemic prevention and control, and to achieve a fine grasp of the information of mobile personnel and accurate prevention and control of the epidemic. [1]

3.2. Build an Online Service Platform

During the epidemic home isolation period, Jiaxing City, Zhejiang Province, adhering to the social governance concept of everyone's participation, uses the three codes of face identity, temperature measurement and health code into the application of smart communities. According to the needs of community public services, the WeiJiaYuan public service platform developed by Jiaxing City can provide communities with online services such as grocery shopping, mask reservation, garbage classification, and conflict mediation, so that community residents can also get life protection without leaving home, which builds a smart community model of joint prevention and control, mass prevention and group governance with the participation of the whole people.[2]

4. Build a Smart Management System for Epidemic Prevention Volunteers

4.1. Establish a Volunteer Information Sharing Platform to Improve Management Coordination

At present, many communities still stay in the traditional volunteer management method, conveying volunteer recruitment information and registering volunteer personal information through community display boards or communication software such as WeChat and QQ. In this process, the scope of volunteer recruitment information is limited, and the sources of volunteer personal information are scattered and numerous, which is not conducive to the efficient and unified management of the volunteer team. In the case that more and more communities have opened a community public account, community personnel can establish a community volunteer information sharing platform through the official account, and publish volunteer recruitment information and volunteer registration channels on the platform. On the one hand, it can improve the audience of information dissemination, and attract more community

residents to participate in the volunteer team of epidemic prevention; On the other hand, the unified registration of volunteers on the online platform is conducive to organizers to count and sort out volunteer information and improve work efficiency.

At the same time, operators can also publish medical knowledge and training knowledge related to epidemic prevention on the online platform, encouraging every volunteer, even community residents to actively read and watch. Improving the popularity of medical knowledge, organizers can also save the manpower, cost and other consumption required for offline training. Operators should also regularly update their training knowledge and share epidemic prevention management reports, so that volunteers can always maintain awareness of epidemic prevention and improve their professional level.

In addition, organizers can set up volunteer feedback channels on the online platform to facilitate volunteer feedback on volunteer service and put forward relevant improvement suggestions, so as to fully understand the inner thoughts and true feelings of volunteers and stimulate the intrinsic motivation of volunteers to participate in volunteer service, which may help to promote the sustainability of volunteer service against epidemics.

4.2. Increase Investment in Big Data Technology and Establish a Volunteer Information Database

Presently, most communities lack volunteer selection and service mechanisms, and the tasks of registered volunteers are randomly assigned, which is difficult to maximize the role of volunteers. Therefore, before the volunteer activities are carried out, the face recognition system can be used to take the form of real-name volunteer certification. With the technology of big data analysis to summarize the volunteers' professional skills and backgrounds, etc., organizers can establish a scientific and perfect information base according to the characteristics of each volunteer, ensuring volunteers can play the greatest effectiveness in their post. Otherwise, for the reason that most of the volunteers are part-time community residents, they have the characteristics of greater mobility. Establishing a volunteer information database helps to update volunteer information in a timely manner, lets community managers understand the whereabouts of volunteers more clearly, and promotes the unified management of volunteer teams[3].

On the basis of establishing a volunteer information database, the community can also build an emergency volunteer management information system to promote emergency management. Nowadays, the capricious epidemic fluctuation is easy to disrupt the rhythm of epidemic prevention in grass-roots communities. An emergency volunteer management information system can help the community to quickly mobilize emergency volunteers who can be used by the community to carry out epidemic prevention volunteer service work in the case of an emergency, and ensure that the resources of all parties can be fully and reasonably mobilized at the first time after the outbreak of a public emergency.

5. Conclusion

As intelligent epidemic prevention and control is gradually becoming a new trend in epidemic prevention, regional governments and communities can consider to incorporate epidemic prevention volunteer management into the smart community management system in the process of exploring smart community epidemic prevention. Building a smart management system for community epidemic prevention volunteers is beneficial for accelerating the process of intelligent construction of epidemic prevention and control, which can effectively respond to the needs of normalized prevention and control in the post-epidemic era.

Acknowledgments

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