Analysis of the Role of General Practitioners Services in Rural Areas during the COVID-19 Epidemic

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ABSTRACT

Since the outbreak of the COVID-19, various regions of China have been rapidly deployed under the leadership of the Central Committee of the Party to actively prevent and control the COVID-19. The rural areas of my country have weak links to the prevention and management of public health emergencies. Problems include lack of medical and health resources and farmers’ low awareness of epidemic prevention. Situations that correspond to the prevention and management of the COVID-19 are more serious. As the patient’s first contact and “gatekeeper” in the fight against the epidemic, the general practitioner is responsible for the “first visit-subsequent ongoing intervention”. This article is about the prevention and control of the COVID-19 epidemics and epidemic prevention in terms of dissemination of knowledge, informed crowd control, joint prevention and control, and standardized management of people. This is a summary of the efforts of general practitioners. Quarantine at home, interactive referrals to medical consortiums, special care for contracted families. The function during the management period aims to analyze the role played by general practitioners during the epidemic and to provide new ideas for the prevention and management of the epidemic. Provide more targeted general practitioner-style services in rural areas to promote the implementation and improvement of health and poverty alleviation. The health level of the rural population provides a theoretical standard.

1. Introduction

Severe Acute Respiratory Syndrome Coronavirus 2 (SARS-CoV-2), discovered in Wuhan in 2019, is a new type of coronavirus that has never been discovered in humans. It is highly contagious and the source of infection is primarily the patient and the main route. Infections for respiratory droplets and contact infections, all susceptible people are humans. As soon as the epidemic broke out, efforts were made to prevent and control the COVID-19s across the country, making the situation even more severe as the main battlefield for the prevention and control of infectious diseases in vast rural areas. On January 30, the Legislature announced that it would do a better job in preventing and managing the epidemic of the COVID-19 in rural areas. It noted that current epidemic prevention and management is at a critical time, and that rural epidemic prevention is one of the priorities of current prevention and management work. There is an urgent need to take more effective, orderly, scientific and thorough measures to prevent the spread of the infection. The “Notice” fully understands the importance, urgency, complexity and seriousness of epidemic prevention and management work in rural areas, and plays the role of major local medical and medical institutions and local physicians and townships.

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It needs to be fully demonstrated. Responsible personnel should properly perform screening, medical follow-up, pre-examination, triage, and referrals in rural areas. If you have a fever from the area of the epidemic or if you suspect an infection, you should immediately refer to a fever clinic. High-level hospitals that support epidemic tracking and facilitation close contact with confirmed and suspicious cases occurrence areas implement home health care observation measures and enhance health care for returnees and floating populations \[1\]. The general practitioner is the gatekeeper of the resident’s health and provides contracted residents with general practitioner services, chronic illness management, appointment reservations, and two-way referrals through ongoing health care. Based on the above advantages, general practitioners may be good at contract resident service management and personalized health education, with the government sector conducting major population screening, implementing standardized management and services for isolated observers. You can effectively help you get the job done. This article summarizes the function of general practitioners in the prevention and management of the COVID-19 epidemic.

2. The Role of General Practitioner Contract Services in the COVID-19 Epidemic

2.1 Disseminate Knowledge of the COVID-19 Epidemics and Epidemic Prevention

General practitioners are often the patient’s first contact and, therefore, the “gatekeeper” of the fight against the epidemic. As a trusted and respected community member, general practitioners have established different ways of contacting residents of the jurisdiction and have implemented different channels for publicity and education. General practitioners can also improve their understanding and awareness of epidemic risks. And, through negotiations and connections with governments and leaders, inform the public of the risks of epidemics and the potential to reduce them in an accurate and true way.

New coronavirus science education with timely disclosure of knowledge on prevention and control of COVID-19 epidemics using various communication platforms such as patient health education groups, general practitioner contract groups, and chronic disease management groups will be carried out. Tell residents about new coronaviruses and the spread of respiratory symptoms, self-examination and self-prevention methods. Residents said, “Be cautious and don’t panic. Wash your hands frequently and wear a mask. Don’t party and hang out.”

General practitioners use WeChat to record relevant videos and teach residents “7 steps to wash their hands” and how to wear the correct mask, leading them to personal protection. Provide online psychological counseling to feared residents so they can overcome their fears. Disseminate knowledge about the legal system to residents, raise awareness of legal compliance, and actively report whether or not they have a history of residence in Hubei Province.

General practitioners, along with street offices and police stations, set up epidemic prevention and management promotional points in residential areas and distributed COVID-19 epidemic prevention and management materials, pamphlets, and cartoons to residents. Manage and enhance epidemic prevention and self-defense \[2\].

General practitioners and community managers use blackboard newspapers, slogans, bulletin boards, LED electronic screens, local loudspeakers, etc., to publicize their knowledge of epidemic prevention and management and promote epidemic prevention and management. It is deeply rooted in people’s hearts and is done scientifically. Guide jurisdiction residents to establish proper preventive management concepts, standardize preventive and management behavior, and improve an individual’s preventive awareness and protective capacity.

2.2 Actively Participate in Joint Prevention and Management, Deploy Informed Crowds, and Stay at the Forefront of Epidemic Prevention and Management

General practitioners teams and townships, communities, village executives, community police, road management personnel, community security, etc., joint prevention to establish epidemics in village groups, communities, settlements, stations, docks, roads, etc. And form a community management work group Prevention and management of entrance and other location checkpoints, carpet tracking and screening of the COVID-19 endemic areas and suspected COVID-19 returnees, major prevention and management target and general prevention and management target discovery, categorized guidance and accurate prevention achievement and control.

Manage epidemic prevention and management through grids, screen layers, and with the help of members of the joint prevention and management team, people returning from endemic areas, or patients with COVID-19 and fever promptly refer or isolate suspects and take relevant control measures. General practitioners participate in joint prevention and manage to make epidemic prevention and management more efficient, truly establish epidemic prevention and management teams, build strong epidemic prevention and management lines of defense. And you can prevent the epidemic. The objectives and effects of epi-
2.3 Standardize the Management of Isolated People at Home

Home quarantine medical observation is a detailed study at home for subjects who have a history of exposure to epidemics but have the longest incubation period of infectious diseases and therefore have no clinical symptoms based on the evaluation and judgment of medical staff. It refers to a means of medical observation. Major medical and health institutions (requires one person) single room, dedicated personnel will follow up on their health status. Avoid or control the suspicious spread of the new coronavirus [1]. The purpose of quarantine observation is to prevent patients from staying and spreading in society through physical quarantine, blocking the source of infection, blocking the route of infection, and avoiding the formation of second and third generation cases. After mastering the list of key populations, members of the Center’s General Practitioner Command and Management Working Group encrypt the list form and assign it to the corresponding general practitioners according to regional management principles. General practitioners do a good job. Being subject to personal protection, come home in time for a village committee executive or police visit, give health notices, temperature measurements, cautions for isolation observations, and have a body temperature (axillary temperature) of 37.3 °C or higher. Report or arrange for respiratory symptoms such as cough, transfer to a designated fever clinic by the command and management working group, depending on the living conditions and physical condition of the main group of people without respiratory symptoms such as fever, it decide to adopt home-based isolation observation or intensive isolation observation.

On-site inspection on the first day of home observation (detention for inspection): “Notice”, “Health tips”, issuance of promotional leaflets, signing of “Home quarantine observation commitment”, filling out “Health information registration form” distribute mercury thermometers, disinfectant tablets, masks, and medical waste bags, direct their use, and perform initial temperature measurements and symptom investigations, to provide contact information for designated contacts, keep records; separate toilets and other isolation stations notifying home protection, disinfection, nutrition, and use.

Guidance for Home Isolation Medical Observation: (1) The subject of home isolation medical observation must be alone in the room, avoiding going to public places as much as possible, and at the same time, the room and public area are good. Make sure ventilation; if conditions do not allow, keep at least 1.0m away, limit activity and deny all visits. (2) Home Isolation Medical Observation objects should use only tableware and hygiene products, and all contacts should be burned at high temperature or soaked in 84 disinfectants and washed with running water. (3) Persons subject to isolated medical observation must wear a medical surgical mask when they come into contact with their families, and other families must wear a medical surgical mask when entering the space where isolated people live. (4) Home isolation Breastfeeding mothers who are subject to medical observations. (5) Breastfeeding mothers who are subject of home isolation medical observation can continue to breastfeed their babies, but must correctly choose and wear medical masks and maintain hand hygiene when breastfeeding. Wash hands with soap and running water before breastfeeding, or wash hands with alcohol-containing hand disinfectants. (6) If the home isolation medical observer has suspicious symptoms during the observation period, including fever, cough, sore throat, chest tightness, dyspnea, anorexia, fatigue, poor spirits, nausea and vomiting, diarrhea, headache, palpitation, conjunctivitis, quadriplegia.

Isolation management: Measure body temperature every morning and afternoon, ask and record symptoms, and provide personalized health education and psychological counseling.

Family management of home quarantine personnel: Outbreaks of the COVID-19 occur primarily in families, accounting for more than 83%. We find it particularly important to provide personalized health education to the families of home quarantine observers to prevent family infections. General practitioners provide health guidance to the family of home quarantine observers, such as wearing surgical masks, maintaining ventilation in the room, avoiding access to the quarantine observation room and contacting home quarantine observers, separating at least 1m away, paying attention to hand hygiene (if you come in contact with items from the isolation room, you should, in principle, disinfect and then clean), doing not share the toilet and tableware, guiding mental health, improving the ability of families to prevent plague [4].

Cancellation of home quarantine: According to the deadline for quarantine observation, the body temperature is measured 1 hour before the expiration of the quarantine period to check the health condition, normal body temperature, no symptoms such as fever or cough. If not, we will issue a “Health Observation Announcement Notice” to announce medical observations. Home isolation medical observations are an important means of preventing and controlling the spread of the epidemic.
2.4 Make the Most of the Medical Consortium’s Two-way Referral System to Face Public Health Emergencies

National and local governments enhance hierarchical diagnostics and treatments, timely triage patients, and avoid “execution” of superior medical resources in major hospitals with medical consortiums and internet diagnostics and treatment consulting. Meanwhile, it provides residents with online consultation services on new coronary pneumonia, fever clinics, and other chronic diseases, provides home isolation and guidance for mild patients, and promptly refers severe patients to designated hospitals. Meanwhile, designated hospitals will guide patients with stable diagnosis and treatment plans to nearby medical institutions for isolation and rehabilitation [3]. As an important step and system innovation in deepening medical reform, the medical consortium is important for adjusting and optimizing the structure of medical resources, promoting the downward shift of the focus of medical and health work and sinking of resources, improving the ability of grass-roots services, promoting the integration of medical resources, and improving the overall medical service system. Effectiveness, better implementation of graded diagnosis and treatment, and meeting the health needs of the people play an important role.

2.5 Help Key Populations Prevent and Control Epidemics

The special population in this article is the type of special that requires long-term medical care for physiological or illness reasons and has more serious consequences than the general population after being infected with a new coronavirus such as the elderly, children and patients with chronic illness. The purpose of caring for a special group is to (1) reduce the crowd of hospitals caused by non-emergency medical services, thereby reducing the risk of infection. (2) By improving the health of such populations and reducing diagnostic pressure. We recommend canceling or replacing medical activities that may attract crowds with online activities (such as health education).

Children: Vaccination of children during an epidemic can be suspended or postponed according to the relevant requirements of the county’s disease prevention and control agency. For newborn visits, feeding guidance, and growth and development assessments, we recommend using video calling as a priority.

Pregnant and Lying Women: Manage pregnant women, distribute folic acid tablets for long-term treatment, and instruct them to make appointments or cross-peak pregnancy tests. Perinatal examinations are recommended by phone or videophone. If on-site service (such as post-operative suture removal) is required, disinfection and isolation measures should be taken to ensure safety.

Chronic Disease Patients: During the epidemic of the COVID-19, be sure to use long-term prescriptions to reduce the frequency of chronic disease patients while ensuring the safety of medications for chronic disease patients. Medical staffs at primary care institutions provide telephone follow-up guidance for patients with chronic illness, timely intervention and return visits for patients who do not meet management criteria, and for patients with acute complications. Need to provide prompt treatment. In special circumstances, the drug may be delivered to your door.

Patients with Mental Illness: Follow up by phone with people in this group to improve medication compliance, detect side effects of medications and poor illness management in time, and ensure medication supply is needed.

Vulnerable groups living alone: We can provide the necessary home health services for people with restricted mobility [1].

3. Discussion

3.1 Information Management of Home Quarantine Personnel to Improve Work Efficiency

The management of home quarantine medical observers should focus on the use of informatization and improve work efficiency. For example, the Tianjin Municipal Health Commission organized the pilot application of “smart voice outbound” technical services in primary medical and health institutions in various districts, established accounts with general practitioner teams, and served residents in the districts through rapid and batch telephone follow-up and SMS notification Assist in carrying out health follow-up, disease screening and health education for key populations. After launching the intelligent voice outbound call system, you only need to set up the call task, perform a one-key voice call, and check the results after the task is over. The data statistics are very clear and clear at a glance. It has greatly liberated the grassroots health manpower and devoted more time to serve patients and fighting the epidemic [4].

3.2 Innovative Epidemic Prevention and Control Model, Accurate Prevention and Control

The experience of medical staff in the Community Health Service Center of Wenhui Street, Xiacheng District, Hangzhou City in adopting the “8541” trilogy is worth learning. In other words, “8 visits, 5 home monitoring services, 4 visits”. The “File” work initiative standard-
izes and refines the work process with three links: visit, home monitoring, and quarantine. “Eight Ones” refers to surgical masks, home care observation notifications, 1-call systems, 3 + 1 WeChat groups, thermometers, health education materials, and Chinese herbal medicine packages for antisense. Medical Pack Garbage Bags; “Five Services” refers to the five aspects of health services, including medical monitoring, health counseling, drug delivery, psychological counseling, and personnel transfers. “Four confirmations” refers to confirmation of identity, time, temperature, and symptoms. Significant improvements in work efficiency have enabled physicians to more accurately assist people in need, allowing grassroots frontline preventive and managers to have more energy in the areas most needed to prevent and manage epidemics [4].

3.3 Improve Traditional Medical Models and Develop Step-by-step Diagnostics and Treatments for Medical Consortia

According to a study conducted by Liu Qiaoyan et al., one of the reasons for the lack of two-way referrals between medical consortia is that it is difficult to change the medical habits of patients and they still tend to go to large hospitals. Recent studies have shown that patients have changed their tendency to seek treatment during the epidemic. During this period, more patients prefer to seek treatment in the community. Therefore, from this perspective, the patient’s tendency to seek treatment can change for a period of time after the epidemic, which facilitates further step-by-step diagnosis and treatment. The main measures taken by the local healthcare community and Beijing Medical Consortium during the Guangdong epidemic [6] are: (1) Organize member units of the medical consortium to provide online diagnostic, therapeutic and protective training related to new coronary pneumonia, and new coronary pneumonia and scientific protection (training) by personnel of the medical consortium unit. Awareness (2) Promote community referral appointments and improve rational allocation of limited medical resources (community patients move up); (3) Emergency infusion patients are transferred to the core Emergency infusion pressure to reduce staff gathering to ease hospitals (emergency infusion down transfer) [6].

Chengdu District [2] has two nearby tertiary A’s to establish a green referral channel so that patients of all kinds can be referred to higher level hospitals in a timely manner during epidemic prevention and management. We have taken the initiative to establish contact with the hospital’s fever clinic. Patients in need of referral will be contacted by a dedicated representative protected according to COVID-19 protection requirements, accompanied by a local physician and sent to a high level hospital for fever. For residents who are not enthusiastic but have a clear history of exposure, special personnel and special vehicles will be sent to the central quarantine point in accordance with COVID-19 protection requirements.

3.4 Transform the Chronic Disease Management Model and Rationally Implement Long-term Prescribing Policies

The impact analysis of Weng Lili [7] and others on promoting long prescriptions on community-related willingness to chronic disease patients indicates that 95.8% of patients will seek the help of a general practitioner as soon as they encounter an emergency. General practitioners are responsible for managing chronic illnesses. I have an important responsibility. Reducing the movement of local residents is one of the important preventive and control measures to effectively control the spread of new coronary pneumonia, and to reduce the number of patient visits, the Shanghai Municipal Health Commission Appropriate extension of prescriptions for patients with chronic diseases in outpatient clinics, outpatient diagnosis for chronic diseases with clear diagnosis, stable condition and long-term use of therapeutic agents during epidemic prevention and management period. And according to the doctor’s assessment of treatment, you can prescribe medication for up to 3 months at a time. The results of the study show that long-term prescribing strategies effectively reduce the number of visits to patients with chronic illness during the epidemic and are beneficial in the prevention and management of the epidemic. However, because it is not relevant, medication knowledge and guidance for patients with chronic illness, side effects may occur [7]. Therefore, general practitioners need to stay in touch with patients with chronic illnesses and provide ongoing service through all non-contact communication channels such as WeChat, email, mobile phones and landlines. Relevant national studies demonstrate that during the period of epidemic prevention and management, general practitioners need to use WeChat groups of patients with chronic illness to organize peer education and achieve good results [9].

3.5 Strengthen the Service Capabilities of Primary Medical Institutions and Focus on Human Resource Development

The shortage of general practitioners is a bottleneck in the development of contract services for general practitioners. Currently, there are about 30,000 general practitioners in my country. According to international standards, there is one general practitioner for every 3,000
inhabitants, but my country needs about 430,000 general practitioners, which is well below the international standard of about 93%. I will. Today’s general practitioners are primarily backed by former local physicians who are older, of lower overall quality, and have uneven technical skills. Some physicians are primarily engaged in clinical diagnosis and treatment and have little or no contact with public health services. “There is still a big gap with the requirements of a general practitioner with general medical knowledge such as prevention, healthcare, medical care and rehabilitation, and providing comprehensive, continuous, timely and personalized medical and healthcare services. Therefore, there is an urgent need to strengthen the construction of talent teams for general practitioners, increase talent training, and establish fixed general practitioner service teams. On the one hand, talent needs to be secured and absorbed by encouraging general practitioner education, signing orders with districts and counties for targeted free training, setting special employment plans, evaluation and recruitment, etc. There is. On the other hand, in order to improve the human resources development system unique to each region, it is necessary to strengthen re-education such as standardized training for general practitioners [9].

4. Suggestions

4.1 Properly Extend Training Time at Grassroots Practice Bases

The training system in the United States [10] clearly stipulates that the training period for general practitioners is three years. The standardized training system for residents in my country has its origins in the United States [11]. The training period for general practitioners is 3 and 10 years, of which the total training period for general practitioners is 10 months. Enrichment of training as the first line of defense for the prevention and management of major infectious diseases, general practitioners perform the important task of performing community grid management with the municipal sector and “carpet-style” investigations of sudden sources. I will be in charge. Patient burden important responsibilities such as follow-up and follow-up of suspicious patients, early detection, epidemic education, remote management of patients with chronic diseases. Labs at grassroots practice bases to ensure that trainees have a strong ability to prevent and control outbreaks.

4.2 Establish an Effective Positive Incentive Mechanism for General Practitioners

Through the combination of soft remuneration and hard remuneration, soft remuneration includes working environment, work itself, career development opportunities, training opportunities, etc., and hard remuneration includes wages, benefits, etc. Through irregular training, strengthen the communication between community hospitals and higher-level hospitals, select doctors to study in higher-level hospitals, strengthen the continuing medical education of the general practitioner team, and improve the professional skills of general practitioners. Improve the performance appraisal system. The appraisal team will determine the final appraisal result, and the person under appraisal will determine the appraisal result. The two parties discuss the problems that arise in the appraisal result, propose solutions and improvement measures, and establish a performance feedback mechanism to achieve a positive interaction between the two parties and promote the general practitioner services.

It is also possible to link medical insurance with the contracted services of general practitioners, learn from the intervention of the medical security system in Changning District, Shanghai, and realize the reasonable allocation of health resources. Through medical insurance prepayment, the general practice can be fulfilled in accordance with the effective number of contractors, service quality and effects Doctors’ contracted service fees provide incentives for general practitioners’ contracted services [12].

4.3 Highlight the Characteristics and Advantages of Traditional Chinese Medicine in Community Prevention

Combine the Chinese medicine prevention project for new coronary pneumonia with the contracted services of general practitioners. One is to distribute Chinese medicine to residents who are isolated at home on time; the other is to go to communities and rural areas and give free Chinese medicine; Third, the health center has set up a free-drinking Chinese medicine decoction to facilitate the people who come to see the doctor to drink.

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References

[1] Zhang Dongyin, Yao Mi.Guidelines for Novel Coronavirus Infection Prevention and Control in Grassroots Healthcare Institutions in Rural Areas -- First Edition[J].Chinese General Practice 2020;23(7).

[2] Pan Xiuling,Wang Bo ,Chen Fangfang .The role of community health service centers in COVID-19 ep-
[3] Yang Yingcheng, Li Shasha, Yang Chunli. Analysis of measures to improve COVID-19 epidemic prevention and control effect in primary hospitals[J]. World Latest Medicine Information 2020;20(43).

[4] Nie Lianlian, Wu Longhui, Li Jun. The role of general practitioners in COVID-19 epidemic prevention and control[J]. Chinese General Practice 2020;23(9).

[5] Jiang Rongmeng. Improve the first line of defense for community-level medical institutions[J]. The front 2020;(5):84-6.

[6] Chu Hongling, Pu Yufen, She Ruifang. Response measures and implementation evaluation of a medical consortium in Beijing during COVID-19 epidemic[J]. Chinese General Practice 2020;23(31).

[7] Weng Lili, Lu Pin, Shen Hongxiang. Analysis of the influence of the promotion of merit on the willingness to seek medical treatment in the community of patients with chronic diseases[J]. Shanghai Medical & Pharmaceutical Journal 2017, 38(24): 12-14.

[8] Meng Cuicui, Chen Dongdong, Wu Jieyuan. Reflections and challenges on chronic disease management brought by the good side under the COVID-19 epidemic[J]. Shanghai Medical & Pharmaceutical Journal 2020;41(12).

[9] Wu Lihong, Pu Chuan. Analysis and Suggestions on the Key Issues of General Practitioners Contract Service in Rural Areas under the Background of Health Poverty Reduction[J]. Chinese General Practice 2019;22(33).

[10] Shi Yufeng. Medical education and post-graduate training in the United States[J]. Continuing Medical Education 1989, 3(4):153-156.

[11] Health and Health Commission, PRC. Standardize training contents and standards for residents[M]. Beijing, 2019.

[12] Lu Ye, Yang Limei, Chen Yanlin. A community study on the incentive mechanism of general practitioners in the general practitioner contract system[J]. China Health Industry, 2018, 15(33): 191-194.