

Management practice and reflection on standardized residency training under the circumstance of public health emergency

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Abstract: Facing the sudden COVID-19 epidemic, the Second Affiliated Hospital of Qiqihar Medical College responded quickly in standardized residency training management, and introduced effective measures and innovative methods. Through encouragement and guidance, continuous training of prevention and control knowledge, and residents' direct or indirect participation in epidemic prevention and control, their ideological awareness and knowledge and skills have been improved, and epidemic prevention and control has become a vivid practice of standardized residency training. The management department carries out precise arrangement, key monitoring, classified management and scientific policy. By formulating the management plan for returning to work after the peak shift and returning to hospital, giving play to the role of mentor, investigating the physical and mental health during the epidemic period, visiting on the spot, answering questions, formulating training guidance under the epidemic situation, and promoting online teaching, etc., it not only does a good job in epidemic prevention and control, but also ensures uninterrupted training and teaching. Through reflection on the epidemic situation, this paper puts forward specific suggestions on the adjustment of standardized residency training curriculum system.

1. Introduction

Major infectious diseases are the enemy of all mankind. The COVID-19 (Novel Corona Virus Disease 2019) epidemic is spreading globally, posing a huge threat to people's lives and health, posing a huge challenge to global public health security, and having a huge negative impact on the global economy, finance, and politics. It brings new challenges to the management of standardized residency training [1]. The Second Affiliated Hospital of Qiqihar Medical College adopted extraordinary measures and strengthened rigid management, which not only made the prevention and control of epidemic situation orderly and powerful, but also made the teaching of residential training uninterrupted and sustainable.

2. Pay attention to "double promotion" of knowledge and skills of epidemic prevention and control and doctors' professional belief

2.1 Accept the baptism of professional belief of excellent doctors

Countless doctors are "most beautiful and retrograde", either fighting the epidemic on the spot or rushing to Hubei urgently. They always maintain the mission responsibility of "supporting each other's lives, putting more emphasis on Mount Tai" and the heroic spirit of "respecting our country and not fearing life and death", making selfless dedication and fighting bravely, demonstrating the lofty professional spirit of "respecting life, saving the wounded and saving the dying, being willing to give and loving the boundless", and handing over a satisfactory answer to the whole society. At the same time, the Resident Standardized Training Management Office forwarded "a letter from the Chinese Medical Training Institute to the national residents" and "a condolence letter from the Chinese Medical Association to the national doctors", conveying the concern of the Chinese Medical Association to the residents, cheering for the residents and encouraging them to participate in the people's war, the overall war and the war of resistance against the epidemic [3].

2.2 Epidemic prevention and control training

The training of infectious disease prevention and control knowledge and skills is one of the important contents of standardized residency training, which requires residents to actively learn and master relevant knowledge and skills and exert their strength in fighting the epidemic situation. It is a valuable learning and exercise opportunity. The hospital timely released relevant learning materials, arranged residents to participate in training organized by various departments, and earnestly studied "Prevention and Control of Hospital Infection of Respiratory Diseases in Winter and Spring", "Technical Guide for Prevention and Control of SARS-CoV-2 Infection in Medical Institutions", "Prevention and Control Scheme of Pneumonia Infected by SARS-CoV-2", "Notice of Heilongjiang Provincial Health and Health Commission on Carrying out Network Training on Prevention and Control of Pneumonia Infected by SARS-CoV-2", and Organize the network examination of epidemic prevention and control, according to the principle of "high requirements and strict standards", those with assessment scores below 90 points are regarded as not up to standard, requiring re-study and examination. Each rotation department should strengthen targeted training to improve the resident's ability and level to deal with public health emergencies [4].

2.3 Positive incentive guidance

General Secretary Xi Jinping's reply to all the "post-90s" members of Peking University's Hubei Aid Medical Team set off a learning upsurge for young doctors in our hospital. Especially, young residents feel warm and excited, which strengthens the initial intention and mission of studying medicine. "It takes hard work to strike the iron". We will take General Secretary Xi's reply as the driving force, study hard, enrich clinical practice, protect people's health with benevolence and contribute to medical and health undertakings. The hospital also planned to launch the online "First Lesson of School Opening" with the fight against epidemic as a textbook. The theme of the course is "Doctors' Benevolence, Fighting Epidemic Situation, Feeling and Being Brave in Home and Country", and many clinical teachers from the second batch of medical teams in Heilongjiang Province who fought in the front line of anti-epidemic were invited to participate in the live broadcast. Teachers and students of the whole hospital, including 221 residents, can watch the live broadcast remotely and synchronously through mobile phones or computers, so as to strengthen their faith and overcome difficulties in this special period. The course set up the links of "medical student oath" re-read by all residents, and writing the post-observation, which promoted residents to consolidate their medical foundation, continuously improve their clinical skills, and be good doctors who inherit the feelings of home and country and serve the people.

In the annual selection activities of excellent teachers and excellent residents, the hospital has specially given "excellent anti-epidemic places" to select a group of teachers and students with outstanding anti-epidemic performance.

3. Strict implementation of special management during the epidemic

3.1 Timely introduction of measures and classified management of students

3.1.1 Timely introduction of measures

The hospital has successively issued measures and plans such as "Notice on Residents' Spring Festival Holidays and Post-holiday Rotation", "Notice on Precautions during Prevention and Control of Resident COVID-19 Epidemic Situation" and "Guiding Opinions on standardized residency training under Epidemic Situation", requiring all departments to ensure that residents and regular employees of the hospital "share the same jobs and protective measures" during rotation. To real-time statistics during the epidemic residents on duty, dynamic grasp in training residents. In principle, residents shall not be forced to participate in medical work in special places such as fever clinic and COVID-19 isolation ward before the epidemic situation is effectively controlled. Training bases, professional bases and rotation departments should incorporate the clinical performance of residents in training during the epidemic situation into the annual assessment indicators of living and training evaluation.

3.1.2 Give full play to the role of tutor

Instructors are required to increase the intensity and frequency of communication with residents, care for residents, pay special attention to their movements, and give timely feedback when abnormal situations are found. One resident's sharing (bus) with people with contact history in epidemic areas was reported by the instructor at the first time and was included in the key monitoring scope. At the same time, teachers are required to pay attention to the mental state of residents and give psychological counseling and psychological support in time [5].

3.1.3 Implement classified management

According to the needs of epidemic prevention and control and the spirit of higher authorities, different management measures are implemented for residents in our hospital and residents recruited for the society. The residents in our hospital are included in the unified management of the staff's work and rest time, and rotate according to the original plan. Residents recruited for the society return to their posts in batches according to the actual situation of the hospital. In addition, residents are required to actively cooperate with epidemic prevention and control management in their current residence, reduce going out and strengthen personal protection. Remind residents not to believe in rumours, make rumors, spread rumours, publish and disseminate false information, and make radical and false statements. Keep communication open 24 hours a day. At the same time, the protection management of residents in hospital was strengthened. Comrade Bao Hongguang, the dean in charge, visited the residents in training many times to understand their difficulties and needs and provide necessary protective materials and nutrition. For residents who need to return to the hospital, formulate a careful and meticulous "plan for returning to work at the wrong peak", and implement it in accordance with the relevant regulations of Qiqihar City's "Notice on Popularizing and Applying Wenzhou health code" and Qiqihar Medical College's "Notice on Further Regulating the Management of Residents and Trainees during COVID-19 Epidemic", and establish a resident health code system and formulate an orderly return temperature plan. During the epidemic prevention and control period, according to the unified deployment of provinces and cities, every resident is required to log in to Alipay to receive "Longjiang health code" before returning to work for training. Those who display "Green code" and have normal body temperature measurement are allowed to return to work for training. Those who display "Yellow code" should first implement measures such as home isolation observation for 14 days and 7 days respectively from areas with high risk of epidemic situation and areas with low risk of epidemic situation, and then transfer to Green code management before they can be granted return training. In principle, those who display "Red code" cannot enter

Wenzhou to participate in the return training. Health code shows "Green code" and residents with normal body temperature measurement are divided into several batches according to the region, the specific time period for students to report is arranged in advance, and multiple check-in points are set up to report in an orderly manner according to the set process. The "14-day Health Monitoring Record Form" should be submitted on the day of registration, and the health examination and dynamic monitoring after returning to work should be done well.

3.1.4 Carry out "physical and mental status investigation" of trainees during the epidemic period

The survey contents include the frequency of checking and confirming the number of cases, the frequency of hand washing, the attitude of staying in hospital, the choice of returning to work, work concerns, how to treat the medical workers struggling in the front line of the epidemic, what psychological changes have been made to the medical work after the outbreak, what aspects of training the hospital should carry out or strengthen in the future, and how to treat the career prospects of doctors after experiencing the sudden epidemic.

3.1.5 Make resident management plan after returning to hospital

Including the department in charge of regular inspections of clinical departments, continue to strictly prevent and control, and implement the department responsibility system. (1) according to the actual needs of clinical work, reasonable arrangement of resident clinical work. (2) Strictly implement the daily report system, and monitor the body temperature of residents who have returned to the hospital twice a day. In case of abnormality (fever, cough, etc.) or contact with suspected patients during clinical work, the rotation department shall report to the competent department in time. (3) The department continues to strengthen the training and assessment of resident epidemic related knowledge and protection knowledge. (4) The tutor should continue to do a good job in the study guidance and management of residents, and guide the correct direction of public opinion.

3.2 Accurate movement and monitoring of key objects

3.2.1 Strengthen accurate investigation

From January 21, the hospital began to arrange the residents in training, and used the resident information registration system to arrange the trips of all residents. With the development of the epidemic situation, on the basis of the original investigation and mastering the travel schedule of residents, all residents were dynamically investigated, including whether there is a history of close contact with confirmed and suspected cases in Qiqihar and other places, whether there is fever, cough, etc., and a roster list was established. Through the telephone, "internet plus Inspector" and other precise positioning, the dynamic information of all 221 residents in training was tracked in real time, and the data were compared and analyzed to improve the accuracy of investigation.

3.2.2 Focus on key objects

Daily reporting of monitoring data. For those who have a history of epidemic contact, senior doctors in hospitals should be arranged to carry out "one-on-one" dynamic monitoring. According to the residents identified, those who are in good condition after the 14-day isolation period will be suspended from reporting according to regulations. During the period when the resident is not back in the hospital, the unit to which the resident belongs issues an official letter, allowing him to participate in the epidemic prevention and control work of the affiliated unit, and continue to monitor and standardize the management.

3.3 Field visit and investigation, answer questions online

Hospital leaders have visited various clinical departments for many times, visiting residents who are on duty. The hospital chose the meeting place in an open place with air circulation. The number of residents attending the conference was controlled within 8 people, and the "Resident Representative

Symposium for Social Recruitment" was held in time, and the residents' self-protection, treatment, workload, transportation, supplementary rotation training and other issues were answered on the spot to eliminate their concerns. After graduation, the Education Department is responsible for answering questions online in time.

4. Non-stop professional training and innovative teaching ideas

4.1 Carry out online living and training teaching activities

Affected by the epidemic situation, the teaching activities of face-to-face residential training in hospitals were suspended. In order to ensure the uninterrupted teaching activities of residential training, the hospital has produced a simple operation tutorial for online residential training teaching activities on the platform of "DingTalk", and encouraged all professional bases and rotation departments to use online platforms such as "DingTalk", Tencent Conference and ZOOM to carry out teaching activities such as small lectures and case discussions. More than 10 professional bases and rotation departments, including pathology, obstetrics and gynecology, pediatrics, endocrinology, anesthesiology, etc., set up "DingTalk Training" group, and the teaching secretary shared PPT courseware, reading literature and other related materials in advance. Doctors with rich clinical experience carry out distance teaching and online interaction through the live broadcast of "DingTalk Training" and "Screen Sharing Mode", creating an atmosphere of "leaving the base temporarily without leaving training, isolating viruses without isolating learning", effectively solving the problems of not being able to concentrate on face-to-face teaching and delaying the progress of teaching and training during the epidemic.

4.2 Conduct online "three basics" lectures

The recorded expert lecture videos are released on online platforms such as "DingTalk", Tencent Conference and ZOOM, and residents can log in to study at any time and pass the corresponding examinations. In addition to the original online training courses, several excellent video courses have been uploaded recently, such as "differential diagnosis of febrile diseases" and "thinking strategy and practical experience of imaging diagnosis", which have improved residents' interest and learning effect.

4.3 Targeted guidance review preparation

Residents who need to participate in the 2020 national residential training graduation theory assessment, Zhejiang residential training graduation skills assessment and national practicing doctor qualification examination. In addition to the above-mentioned online courses, the hospital also shared some review reference materials to guide them to review and prepare for the exam.

4.4 The residential training curriculum system is adjusted accordingly

Moral education is fundamental. Since the outbreak of the epidemic, most residents have been actively fighting, and their professionalism has been demonstrated in practice. However, some residents are afraid of retreat, or fear of danger, or lack of panic ability, and miss the opportunity of practice.

As the basic stage of physician training, standardized residency training needs to pay attention to wide foundation and thick base, and implement post competency. In the residential training curriculum system, we should strengthen the curriculum of infectious disease prevention and control, hospital sense prevention and control, Chinese medicine and other aspects, and increase the practical content, and strengthen the medical humanities courses such as crisis response and psychological counseling. We should strengthen the "three basics" (basic theory, basic knowledge and basic skills) and "three strictness" (strict requirements, strict organization and strict attitude), and strengthen the training of disease prevention knowledge. Residents should strengthen the training of their thinking ability in general practice when they rotate among different specialties.

In addition, attention should be paid to the cultivation of residents' self-learning ability. Medical science is changing with each passing day, and there are still many unknown fields, so it is necessary to obtain information in time through self-study, think and summarize in study and apply it to clinical practice. Reflection on the epidemic situation reminds us to establish a great health concept and pay attention to every link of the whole life cycle. In order to establish a great view of education, the content of education should be embedded in life, safety, responsibility and virtue education in time.

We should continue to carry out education and teaching reform and increase the research and layout of online course platform [10]. We should break down discipline barriers and promote cross-integration.

In a word, through the adjustment of curriculum system, a new system of standardized residency training personnel training is designed reasonably.

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