

Thoughts on the Vocational Protection Education of Medical Interns

Rui Meng

Xi'an PeiHua University of Medicine, Xi'an City, Shaanxi Province 710125, China

Abstract. Occupational protection education of medical interns is related to medical safety and medical quality. Good occupational protection education will benefit interns for life. In order to avoid the occupational exposure, this paper suggests that schools and hospitals should jointly develop applied occupational protection courses. And strengthen the vocational protection education before going on duty is needed. Hospitals should establish a consultation platform for occupational exposure through network channels and pay attention to the humanistic care of interns after their professional exposure.

Keywords: medical interns; occupational protection; education; occupational exposure.

1. Introduction

Occupational safety protection education is one of the effective measures to reduce occupational exposure. As an important part of medical education, it is particularly important for the professional development of medical students, so that they can carry out their own occupational protection and clinical work smoothly. Medical interns are exposed to toxic and harmful substances, or infectious pathogens, such as sharp instrument damage, blood and body fluid pollution, which are easy to cause occupational exposure, thus damaging health or endangering life. Medical students are the future of the hospital. How to reduce the harm of occupational exposure to them is the focus of hospital managers. In the past literature, the incidence of occupational exposure of medical interns reached 42.31%. Recent studies show that 71.53% of medical interns are women, 28.77% are men, 55.48% are nursing students and 38.69% are interns. The sources of exposure are hepatitis B virus 56.20%, *Treponema pallidum* 28.47%, human immunodeficiency disease 8.76% and hepatitis C virus 6.57%. It can be seen that the incidence of occupational exposure of interns is high, and it is urgent to carry out effective occupational protection education and training.

As an important part of medical education, occupational safety education is particularly important for the professional development of medical students, so that they can do their own occupational protection well and carry out clinical work smoothly. For the care of patients with infectious diseases, the importance of occupational protection is more prominent. In the face of quarantined patients with infectious diseases, medical staff must be fully armed to prevent the spread of infectious diseases. According to Jin Jing's research, 96.3% of the nursing students think it is necessary to carry out relevant education to prevent occupational hazards, and 92.5% of the nursing students think it is very important to take occupational protection measures to prevent occupational hazards. If interns do not pay attention to occupational protection in practice, it may endanger their own health, or even affect their career. Therefore, in order to ensure the medical safety and improve the quality of medical treatment, reduce the occupational risk of medical interns to the maximum extent, it is urgent to carry out the teaching reform of occupational protection to meet the needs of medical institutions and medical students. This paper puts forward some suggestions to strengthen the vocational protection education of medical interns.

2. Set up Vocational Protection Courses with Strong Applicability

In China, the vocational protection started earlier, but its development is relatively backward, and the vocational protection education is always the weak link in medical education. Therefore, the theoretical knowledge and practical ability related to occupational protection of medical students are extremely deficient. The research shows that most medical colleges and universities do not offer the course of occupational protection, only through emphasizing the protection knowledge in some

professional disciplines is weak, and the effect is often unsatisfactory. According to previous research reports, the level of occupational protection (including protection knowledge, skills and awareness) of students was significantly higher after a medical college opened the course of occupational health protection. It is worth noting that the course is still multimedia based, with less class hours, relatively limited contact between students and clinical practice, and the practical ability of students needs to be strengthened. Therefore, schools and hospitals should be committed to jointly develop practical vocational protection courses, change the previous mode of independent vocational protection education in schools and hospitals, and carry out curriculum innovation and reform, especially pay attention to the effect and quality of vocational protection education. The curriculum can draw lessons from the concept of foreign occupational protection and specific measures to prevent occupational exposure, closely integrate the occupational protection education with the clinical curriculum education, fully contact with the clinical operation, and seamlessly connect with the future occupation. The contents of the course include: Intern's standard operation, hand hygiene, good communication ability, and the process after occupational exposure. In the teaching of occupational protection courses, the form of classroom teaching should be changed. Various teaching activities can be arranged, such as special lectures, online teaching, flipped classroom, clinical practice, scenario play simulation of occupational exposure, so as to stimulate students' internal learning motivation and effectively improve the teaching effect. Some studies have shown that the implementation of standard prevention knowledge competition can strengthen the teaching effect of standard prevention, enhance the consciousness of interns to prevent occupational exposure, and effectively reduce the incidence of interns' occupational exposure.

3. Strengthen the Vocational Protection Education before Going on Duty

Previous studies have shown that the period before clinical practice is the best period for students to generally accept and accept systematic protection education, and the training effect of carrying out protection knowledge and protection methods before practice is the best. For pre internship medical students, do a good job in pre job occupational protection education and training, master occupational protection knowledge and skills, and do a good job in emergency treatment in time after exposure. Wanxiaochao et al. Analyzed the influence of pre job occupational protection education on the occupational protection ability of nursing students. It was found that after the practice of pre job occupational protection education, the cognition of occupational protection knowledge of nursing students was significantly improved, and the incidence and per capita injury times of medical sharp instrument injuries were significantly reduced during the practice. Zhou Guli implemented intervention measures for the interns who did not enter the clinical work, including establishing infection management group, strengthening the learning of relevant theories and skills (focusing on the prevention and control of infection knowledge), etc. The results showed that the incidence of occupational exposure of the interns in the intervention group was only 4.76%, while that of the interns in the control group was as high as 30.16%. By adopting corresponding intervention strategies, the occupational exposure of interns can be reduced and the risk and incidence of occupational exposure can be controlled. At the time of coming to practice, the school can organize teachers with rich clinical work experience to compile real cases of occupational exposure, take typical clinical cases as a mirror, show the significance of occupational protection and the consequences of occupational exposure to interns, so that they can realize the high preciseness of clinical work, improve the awareness of occupational safety protection, and take active measures to prevent occupational injury To protect their own security.

4. Establish a Professional Exposure Consultation Platform through the Network

At present, the treatment of occupational exposure in hospital has not been fully electronic. When interns encounter the specific problems of occupational injury, they are not clear about how

to deal with them and how to report them. In order to solve the follow-up problem of occupational injury in the first time, it is necessary to establish a consultation platform of occupational exposure by means of network. The platform is mainly responsible for the reporting, handling, guidance, follow-up and other work of occupational exposure, and regularly carries out the training of occupational protection online, and timely pushes the latest occupational protection concept and international advanced occupational protection methods and equipment. In this way, the vocational protection education of interns is more in line with the times and international standards, which greatly broadens the way of vocational protection education, and helps to further enhance the awareness of vocational protection and master the operation skills of vocational protection. At the same time, wechat group and QQ group can be established between the hospital's infection control department and all clinical departments to facilitate the establishment of communication and feedback channels for occupational protection, provide practical safety protection guidance and avoid the occurrence of occupational hazards to the greatest extent.

5. Attach Importance to the Humanistic Care of the Exposed Interns

Previous studies have shown that in the six months after blood-borne occupational exposure, the medical staff's perceived pressure, post-traumatic stress symptoms and anxiety and depression continued to rise. Another study shows that 30.86% of the medical staff have fear and 18.52% have job burnout. After effective psychological intervention, they can improve their psychological state and effectively prevent serious psychological problems. A study of nursing students who have experienced needle stabbing injury shows that 68.29% of them are mainly worried about mild anxiety, and they are most worried about HIV infection. When Mary Hospital in Hong Kong accidentally gets stabbed by a needle used by an infected patient, the hospital will set up a tracking team, set up a file for the employee, inject the preventive needle for the employee on time, and provide psychological consultation. This is worth learning and imitating. The hospital can establish a psychological support team to timely conduct psychological counseling for the personnel after occupational exposure, give humanistic care, reduce their psychological pressure, so as to reduce the negative impact of occupational exposure on them, and regularly test the markers in the blood, inject vaccine, if necessary, give preventive drugs, and promote the physical and mental recovery of interns.

6. Other

From the hospital level, promote and improve the establishment of various hospital protection system norms, develop the protection system of medical interns, so that interns can master the specific protection means of dealing with different patients. In case of accidental occupational injury, interns can follow the rules and deal with it quickly. In addition, the hospital should be equipped with sufficient safety devices, such as injection needles (safety needles), goggles, protective masks, masks, protective clothing and other occupational safety protective articles, to solve the problems of the existing shortage of items, unscientific storage of items, and complicated application procedures for special protective articles, so as to minimize potential safety hazards, improve the compliance of interns with the standard prevention principles, and create safety A healthy professional atmosphere.

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