

Investigation and Research on the Training Quality of Master of Public Health——Based on the Satisfaction Survey of Employers

Xiaozhong Chen, Jiaxin Liu, Luxi Huang, Tingting Ma, Xiaoxiao Liu*

School of Public Health and Management, Wenzhou Medical University, Wenzhou 325035, China.

Abstract: Objective To understand the evaluation and demand of employers for public health master's talents, so as to provide reference for the reform and development of MPH graduate education. **Method** A self-designed questionnaire was used to investigate 108 teachers in the internship unit of Wenzhou Medical University. **Result** Employers have a good overall evaluation of public health specialists, and only clinical medical knowledge, health inspection and quarantine, and related interdisciplinary knowledge are less satisfied. The most important thing is to pay attention to learning attitude, learning ability, teamwork and professional knowledge and skills. It is considered that systematic thinking ability, analysis and problem-solving ability are urgently needed. **Conclusion** It is suggested that we should focus on the implementation of training links, construct training system, pay attention to social needs, reform educational model, perfect feedback mechanism and perfect evaluation system, in order to train high-quality professionals.

Keywords: Public Health; Quality of Talent Training; Satisfaction

Introduction

In recent years, China has been impacted by major public health events, and the market demand for public health talents has changed. How to adapt to the new public health system, carry out teaching reform and train practical high-quality public health talents has become an urgent problem to be solved. Taking Wenzhou Medical University as an example, based on the evaluation results of employers' satisfaction with the training of master of public health, this paper provides targeted thoughts and suggestions for improving the training quality of master of public health.

1. Research Methods and Contents

1.1 Object of Investigation

The survey was carried out from June to October in 2022. 108 instructors for internships in health committees, comprehensive tertiary hospitals, disease prevention and control centers, health supervision institutes, health bureaus, community health service centers and other internship units. There are 69 public health masters from 19 to 21 of Wenzhou Medical University working there. A total of 108 questionnaires were distributed, and 108 valid questionnaires were recovered, with an effective rate of 100%.

1.2 Research Methods and Contents

On the basis of consulting the relevant literature and conducting in-depth interviews with the students and teachers who are participating in the internship, and combining the new demands of the society for the competency of public health talents, a self-designed questionnaire was completed. The contents of the questionnaire included the situation of the department of the employers, the evaluation of the overall job satisfaction of the interns with the master of public health in our school, and the evaluation of adaptability, thinking ability, professional ability, professional accomplishment, the development potential of post competence and other aspects of quality. The satisfaction was evaluated by Likert rating scale and item responses ranged from 1 = very dissatisfied to 5 = very satisfied. SPSS23.0 software is used to deal with the data statistically, and the measurement data are expressed as ($\bar{x} \pm s$).

2. Results

2.1 Basic Information of Employers

The survey showed 66.67% of the interviewees have the title of deputy senior or above. The main channels for employers to recruit interns: most of the respondents indicated that they recruited interns through the recommendation of colleges and universities (70.83%). And they can also recruit interns through self-recommendation by students (20.83%) or other channels (8.33%). The employer's perception of the time for our school's interns to adapt to the job: 20.83% of the interviewees would take more than half a year for interns to adapt to the job.

2.2 Employer's Satisfaction Evaluation

2.2.1 Module Settings for Master of Public Health Training

Satisfaction with training goals, graduation thesis, and scientific research projects is "relatively satisfied" and above 100%, curriculum setting and training programs are 95.83%, and internship practice arrangements are 91.66%. The average scores of each evaluation index are sorted from high to low: scientific research projects, training objectives and graduation thesis, training programs, internship practice arrangements, curriculum setting.

2.2.2 Ability of Master of Public Health Interns

Employers have higher satisfaction evaluations on the three aspects of interns' thinking mode, professional quality and development potential. In terms of professional ability, the evaluation of satisfaction with clinical medical knowledge (4.33 ± 0.130), related interdisciplinary knowledge (4.46 ± 0.120), health inspection and quarantine (4.33 ± 0.130) was low.

2.2.3 Post competency

In terms of professional competency, employers have a high degree of satisfaction with interns' ability to apply all professional knowledge and skills. In terms of quality and competency, employers have a high degree of satisfaction with interns' communication and teamwork abilities. But the satisfaction with organizational leadership ability (4.38 ± 0.118) and social mobilization ability (4.46 ± 0.120) was low.

2.2.4 Overall Satisfaction Evaluation

Employers rated Wenzhou Medical University's Master of Public Health interns as "satisfied" and above 100%, the overall satisfaction rating of Wenzhou Medical University's talent training work was "satisfied" and above, accounting for 95.83%. It can be seen that the master of public health interns have been affirmed and unanimously praised by the employers.

2.3 Demands of Employers

Employers are most concerned about the learning attitude of interns (91.69%), followed by learning ability (83.33%), teamwork (54.17%), professional knowledge and skills (54.17%), communication skills (50 %), office software operation skills (50%), compliance with laws and regulations (45.83%).

2.4 Ability and quality to be improved for Master of Public Health

Employers think that the interns' systematic thinking ability (50%), analysis and problem-solving skills (45.83%), critical thinking skills (33.33%), health policy and management skills (29.17%), data statistical analysis skills (16.67%), disease and health monitoring and reporting skills (16.67%), epidemic disease investigation and analysis skills (12.5%), health education capabilities (4.17%), health ethics literacy (4.17%) and other professional skills and literacy need to be further improved in order to enhance their employment competitiveness and be more competent for the job position and job content.

3. Discussion and Suggestions

3.1 Focusing on the Implementation of Training Links, Build a Training System

The survey showed that the interns of the Master of Public Health of Wenzhou Medical University had insufficient mastery of clinical medical knowledge and related interdisciplinary knowledge. It is recommended to actively build a public health talent training system that covers the entire chain of college education, post graduation education, and continuing education ^[1]. It is also possible to innovate the public health talent training system by carrying out educational and teaching reforms such as innovative curriculum

systems, research and development of online teaching resources, development of joint training bases, and construction of a progressive full-cycle training system^[2]. At the same time, we should encourage the development of a dual-degree joint education program for masters of public health and clinical medicine, and cultivate composite public health talents with strong abilities in "health prevention + clinical diagnosis and treatment"^[3]. The survey also found that the interns of the Master of Public Health are still lacking in adapting to the job position. Some studies have found that there is a significant correlation between practice time and insufficient post competency. Students with insufficient post competency have significantly less practice time, which may be related to the lack of standardized management in the practice process. It is recommended to invite well-known experts from CDC, health supervision institutes, health and health commissions and other departments and institutions with rich field experience to give lectures at the school, interpret the latest national public health policies, and accurately convey the spirit of the new era. Timely resolve the problems of school teachers' lack of on-site combat experience and teaching cases that cannot be closely related to national public health policies and major public health emergencies in a timely manner^[2].

3.2 Guided by Focusing on Social Needs, Reform the Education Model

Leveraging the development of the public health system with competency research and transforming theory into practice can effectively help the realization of China's planned public health goals^[4]. Firstly, employers value the interns' learning attitude and learning ability. It is suggested that practice bases and schools actively invite previous outstanding trainees or young doctors to share their experience in the learning process, which will enhance their intrinsic learning drive. Secondly, It is recommended that some case studies and real scenes can be set up in the curriculum to help medical students make independent judgments and choices. Reproducible courses, and strict and highly standardized requirements and inspections for students. Thirdly, the lack of organizational leadership ability exposes the lack of comprehensive ability of students from the side. It is suggested that relevant policies should be introduced during the process of training MPH graduate students to encourage graduate students to participate in community activities.

3.3 Improve the Evaluation System by Improving the Feedback Mechanism

From the results of this questionnaire, we can get a glimpse of the disadvantages of the interns in our school in terms of systematic thinking ability, analytical and problem-solving ability, critical thinking ability, health policy and management ability. Firstly, in terms of evaluation system, it should follow the guidance of scientific theory, refer to the post-graduation education personnel training post competency evaluation index system at home and abroad as scientific guidance, and use this as a reference to formulate an evaluation scale that is in line with the actual situation of the training unit. Secondly, the evaluation criteria need to follow the principles of comprehensiveness and systematicness, combination of quantitative and qualitative, independence and operability, and strive to systematically and comprehensively reflect the level of interns. Thirdly, in terms of evaluation methods, the combination of quantitative methods and qualitative methods, data analysis and typical cases and other evaluation methods can provide a deeper understanding of the current situation of internship adaptation and development of interns in training units.

References

- [1] Du J, Zhan QM. Thoughts and suggestions on promoting the development of medicine in China in the post-epidemic era [J]. Journal of Peking University (Medical Edition), 2020, 52 (3): 405-409.
- [2] Su L, Tang XY, Zheng YY, etc. The country is in urgent need of innovation and practice in the training of high-level applied master of public health [J]. Journal of Guangxi Medical University, 2022 J 39 (10): 1684-1687.
- [3] Ouyang FX, Liu HZ, Yan JH, etc. Discussion and practice of the combined training program of public health specialist and clinical preventive medicine [J]. Contemporary Medicine, 2022, 28 (01): 186-191.
- [4] Ma YQZ, Guo HY, Han GY, et al. Bibliometrics Analysis of competency Research of Public Health system in China [J]. Public Health Management in China, 2021 Journal 37 (1): 9-12.

Fund project: Wenzhou Medical University, special project of postgraduate education in 2020: exploration on the reform of talent training mode of Master of Public Health (MPH) under the background of COVID-19 epidemic situation (project number: YB2020YJSJY02)

*Corresponding author: Xiaoxiao Liu