

RESEARCH ARTICLE

# Cultivation of Pharmaceutical Ethics and Pharmaceutical Skills of Pharmaceutical Students before Internship

Journal of Global Humanities and Social Sciences

2022, Volume 3(1)1-3

DOI: [10.47852/bonviewGHSS2022030101](https://doi.org/10.47852/bonviewGHSS2022030101)



BON VIEW PUBLISHING

Li Hu<sup>1,\*</sup>

<sup>1</sup>Department of Light Chemical Engineering, Hubei Light Industry Technology Institute, Wuhan, China

**Abstract:** Cultivating students' moral and practical skills is an important teaching content in pharmacy teaching. The internship stage is the last training stage for the basic practical skills of pharmaceutical students. Before the internship, students should understand the rules and regulations of the internship unit, make clear the contents and objectives of the internship, strengthen the basic skills training of four pharmacy majors, which are prescription preparation, drug analysis and inspection and drug maintenance, and develop good pharmaceutical ethics.

**Key words:** Pharmacy major; Student practice; Medicine virtue; Pharmaceutical skills;

## 1. Introduction

With the deepening of medical reform in China, great changes have been brought to the tasks of hospital pharmacy and social pharmacy, mainly from drug-oriented to patient-oriented, and from drug supply to rational drug use. Under this background, pharmaceutical education has also undergone a brand-new transformation, from academic to applied, from single pharmacy to combination of medicine and pharmacy. The internship stage is a very important part of pharmaceutical education. The quality of internship is related to the achievement of teaching objectives, and it also plays a key role in students' working ability after graduation. This article will analyze the pre-practice training of pharmaceutical students from two aspects, which are strengthening the education of pharmaceutical morality and training of pharmaceutical professional skills.

## 2. Strengthen the education of medicine morality

### 2.1 Attach importance to the cultivation of pharmaceutical ethics

Pharmaceutical professional work has the characteristics of difficult technical work, wide disciplines and clear job

division. Therefore, the requirements for ethics are more stringent, which can be unified into the following three aspects.

First, take work seriously. Pharmaceutical workers should strictly follow the codes, standards, rules and regulations and operating procedures in accordance with scientific norms, and take medication safety as the working criterion to achieve the goal of skilled and accurate operation as far as possible. Second, respect the clients and improve the service quality. Pharmaceutical workers, no matter which job they are in, should provide corresponding drugs or services from the perspective of public or social needs. For example, in hospital pharmacies, patients should be fully cared for, understood and respected. When dispensing drugs, we should pay attention to courtesy and provide patients with high-quality pharmaceutical services. Third, pay attention to personal appearance. Personal appearance is the unified requirement of connotation and external expression. Pharmaceutical workers should be neat and generous in appearance, unconventional, steady in behavior, quick and decisive in action, and should not be flustered, lazy or frivolous.

### 2.2 Be familiar with job responsibilities and clarify internship objectives

Organize students to discuss the internship code, so that students can understand the rules and regulations as well as responsibility of internship positions, which makes students

**Corresponding Author:** Li Hu

Department of Light Chemical Engineering, Hubei Light Industry Technology Institute, Wuhan, China.

Email: [2273627156@qq.com](mailto:2273627156@qq.com)

understand that internship is not only the process of practicing professional skills, but also the process of practicing pharmaceutical ethics<sup>[1]</sup>. Teachers should explain specific internship objectives according to students' internship positions to help students understand the corresponding professional skills requirements.

#### 2.2.1 Objective of pharmaceutical practice

During the internship in pharmaceutical enterprises, students can understand that the quality of medicines is formed in the production process. Through the implementation of GMP standardized management and the establishment of a sound quality system, the probability of human error will be minimized, the possibility of drug pollution and product quality degradation will be prevented, and the quality awareness of production personnel will be improved<sup>[2]</sup>.

#### 2.2.2 Practice objectives of pharmaceutical enterprises

Through internship in pharmaceutical business enterprises, students can combine theory and practice, and deepen their understanding and flexible application of knowledge in pharmaceutical commodity management. Students will be able to master all aspects of the purchase, sale, transfer and storage of pharmaceutical products, be familiar with the practical application of laws and regulations related to pharmaceutical management in pharmaceutical business activities, and understand the market dynamics of pharmaceutical products.

#### 2.2.3 Practice goal of general preparation room

Practice in general preparation room can further cultivate students' realistic and rigorous scientific style. Through internship, students can independently complete the preparation of common hospital preparations, and can write the preparation report in detail. In addition, students need to effectively predict and correctly handle the unexpected situations in the preparation process, correctly evaluate the appearance quality of finished products, and properly handle the charging containers as required.

#### 2.2.4 Practice goal of western medicine dispensing room

Practice in western medicine dispensing room requires students to have a rigorous and serious work style and an idea of serving patients. Students are able to complete the prescription review, formulation and dispensing under the guidance of the teacher or independently, and treat the drug usage correctly as well as make a simple statement on the overall layout of the pharmacy, drug arrangement rules and drug management system and methods, and are able to preliminarily identify various incompatibility<sup>[3]</sup>.

#### 2.2.5 Objective of practice in drug testing room

The internship process in the drug testing room can help students deepen their understanding of theoretical knowledge, cultivate a serious and strict attitude towards the quality of drug testing, and establish the concept of drug quality first. The internship process can help students deepen their theoretical knowledge, cultivate a serious and strict attitude towards the quality of drug testing, and establish the concept of drug quality first. In addition, through the internship, students can master the use of common instruments and the corresponding quality control measures in the drug testing room, and can independently complete the inspection of commonly used drugs.

### 3. Cultivation of pharmaceutical professional skills

#### 3.1 Prescription dispensing ability

Prescription dispensing is an important part of hospital pharmacy practice. In the pre-practice training, students' understanding of prescription structure and writing rules can be enhanced by reviewing old prescriptions, etc., so that students can master the process and methods of prescription dispensing and improve their awareness of prescription dispensing quality management.

#### 3.2 Preparation skill

Preparation skills should be closely integrated with modern production practices and medical applications, and in teaching, its practicality should be highlighted and its applicability should be emphasized. According to the current practice status, the school side should strengthen the on-site teaching of liquid preparation, bulk and tablet in the basic training, and establish a special tablet laboratory, so that students can prepare tablets that meet the requirements through the professional production equipment and testing equipment in the laboratory. Because of the large gap between the conditions of school laboratories and the production lines of hospital preparation rooms and pharmaceutical plants, teachers can let students use some simulation preparation simulation software to help them understand the production situation of hospital preparation rooms or pharmaceutical plants. It will help students to have some knowledge about the plant layout, industrial process, environmental purification requirements, workshop management and quality control of pharmaceutical plants, which will help students to integrate their learning contents with modern production.

#### 3.3 Drug analysis and inspection skills

##### 3.3.1 Be familiar with the basic procedures of drug inspection

Drug inspection is an important link in drug quality control. Inspection procedures are generally divided into acceptance, sampling, appearance observation, identification, inspection, content determination, and issuance of inspection results and inspection reports.

#### 3.3.2 Master the use of drug standards at all levels

Students must be familiar with the use of drug standards at all levels, especially the use of *Pharmacopoeia of the People's Republic of China*. Students can be arranged to do some practical operations, such as preparing 0.5 mol/L hydrochloric acid titration solution 100 ml, and dilute sulfuric acid solution (1:20) 50 ml, so as to train students' practical ability, ability to solve problems independently and application ability of pharmacopoeia standards.

#### 3.3.3 Be familiar with various analysis and inspection operations

In the basic training of analytical inspection operation, teachers should focus on training students to master analytical balance, pipette and capacity. The use of vials, burettes, spectrophotometers and aseptic operation technology, and the strict use of standardized operation in drug analysis and inspection are the basic qualities that drug inspection analysts must possess, and also the basis for ensuring the accuracy of inspection results.

#### 3.4 Medicine maintenance ability

##### 3.4.1 Regionalization and cyclic maintenance inspection

The existing drugs are divided into three areas, which are prescription drug area, non-prescription drug area and traditional Chinese medicine decoction piece area, and cyclic maintenance inspection is carried out regularly. For the drugs in stock, it is best to check periodically and make relevant maintenance records.

##### 3.4.2 Maintenance of key drugs

Dust-proof, moisture-proof, pollution-proof, insect-proof equipment that meets the requirements of drug storage and temperature and humidity detection and adjustment instruments for maintenance are necessary in practical work. According to the variety structure, storage conditions, natural environment changes and regulatory requirements of drugs, on the basis of daily maintenance work, the key maintenance varieties are determined, and the *List of Key Maintenance Drug Varieties* is established, and the key maintenance work is carried out on a regular basis, and maintenance records are made at the same time<sup>[4]</sup>.

##### 3.4.3 Do a good job in drug management in the near-term period

When storing drugs, they should be stored according to the batch number and expiration date of the drugs. For drugs with near-term efficacy, it is necessary to focus on maintenance, establish maintenance files for drugs with short legal efficacy, implement key quality control for drugs with near-term efficacy and urge sales in time.

## 4. Conclusion

To sum up, graduation practice is the only way for students to go to work. In addition to completing the internship requirements in the internship outline, students should also improve their communication skills, adaptability, teamwork skills and good professional ethics, so as to fully prepare for the subsequent social competition.

## Conflicts of Interest

The authors declare that they have no conflicts of interest to this work.

## References

- [1] Liu Yuanfen, Chen Xuemei. Current situation and thinking of internship in hospital pharmacy and social pharmacy for pharmaceutical students in higher vocational colleges [J]. *Pharmaceutical Education*, 2020, 36(2):4-5.
- [2] Tan Yong, Rumei, Dai Zhonghua, Guo Min, Li Yonghua, Tian Hui, Zhao Lichun, Feng Jianfang. Talking about the cultivation of practical skills of students majoring in traditional Chinese medicine by general survey of traditional Chinese medicine resources [J]. *Health Vocational Education*, 2020, v.38; No.555(24):21-22.
- [3] Zhu Fang, Liu Chengcheng, Ou Ya, et al. The current situation and countermeasures of internship for students majoring in pharmacy in higher vocational colleges [J]. *Western Quality Education*, 2020, 6(15):2-3.
- [4] Xia Bijun, He Jiao, Liu Dan, et al. Professional quality training for students majoring in pharmacy during internship [J]. *Science and Technology Innovation Herald*, 2020, 17(15):2-3.