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## Pharmacy Exit Exam for the Upliftment of Profession of Pharmacy Practice in India: A Review

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**ABSTRACT:** The goal of implementing exit exams for Diploma in Pharmacy (D. Pharm holder) is to encourage students to put effort into their learning. Considering the growth of the healthcare sector in India, pharmacists have a lot of career opportunities if they can cope with the ever-increasing demand for innovation, research, skills, knowledge and talent required in the profession. The pharmacy profession is moving dynamically as we are heading towards becoming the pharmacy of the world. Exit exams can be a good quality indicator for academic program reviews and for educational institutes teaching standards. The compulsion of the exit exam will set into place new standards intended to increase the learning of all students. Such exams result in positive effects on student achievement. Exit exams will surely upgrade the pharmacy profession in India.

**Introduction:** India is a developing country with 28 states and 7 union territories that make up the majority of South Asia. It is an independent, secular republic. In India, one must possess at least a diploma in pharmacy, which can be obtained after just two years and three months of study. The majority of pharmacists practicing nowadays have a diploma.<sup>1</sup>

The first D. Pharm pharmacy education college was established at Jalpaiguri, in 1949 at West Bengal. Education regulation of the Pharmacy

Council of India constituted Diploma in Pharmacy (D. Pharm) as the minimum education qualification to be admitted into the profession of pharmacy in India 1953.<sup>1,2</sup>

Prior to 1932, a few hospitals and academic institutes in India trained pharmacists for medical supply stores and hospitals who were then referred to as "Compounders." Back then, this program was referred to as a compounder's training course. The Christian Medical College in Vellore, which was founded in 1900, also

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established a degree in 1921 for compounders' training, which was later changed into a D. Pharm course in 1958.<sup>3</sup>

An entry-level tertiary pharmacy diploma in India is the Diploma in Pharmacy (commonly abbreviated as D Pharm or D Pharma). It is achieved after a two-year training period. After successfully completing their higher secondary education in the science stream with physics, chemistry, and either biology or math as subjects, students are eligible to participate in the course.<sup>3</sup>

The regular academic study program required by Regulation 7 must be held in an institution that has been granted approval by the Pharmacy Council of India in accordance with Section 12(1) of the Pharmacy Act of 1948.<sup>4</sup>

## 2. Current Status of D. Pharm in India:

At present 2460 colleges are offering D. pharm in India approved by the Pharmacy Council of India.<sup>5</sup> The program will last for two academic years, with each academic year being divided into at least 108 working days. There will also be 500

Subject Name	Theory	Practical
Pharmacology	Yes	Yes
Community Pharmacy & Management	Yes	Yes
Pharmacotherapeutics	Yes	Yes
Biochemistry & Clinical Pathology	Yes	Yes
Hospital & Clinical Pharmacy	Yes	Yes
Pharmacy Law & Ethics	Yes	No

hours of practical training spread out over at least three months.<sup>6</sup> Since 1991 the curriculum of d. pharm was revised and was the same across the entire colleges in India<sup>1,6</sup> and the subject was in D. Pharm Part I Pharmaceutics I, Pharmaceutical Chemistry, Pharmacognosy, Human Anatomy & Physiology, Health Education and Community Pharmacy and Biochemistry & Clinical Pathology and in D. Pharm Part II the subject was Pharmaceutics II, Pharmaceutical Chemistry II, Pharmacology and Toxicology, Hospital & Clinical Pharmacy. All the subjects contain theory

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as well as practical and the curriculum includes 500 hours of practical training in a Hospital<sup>7</sup> but this syllabus possess only the surface knowledge about the subjects this syllabus also does not contain the pathology and drug therapy of the diseases which must be the core area of the Indian pharmacist and this will help in the provide rationalize therapy to the patient.<sup>8</sup>

To overcome this problem and to promote rationalized therapy by the d. Pharm holder the pharmacy council of India (PCI) the regulatory body for regulating pharmacy education in the nation in adjustment with the National Education Policy (NEP) has released a revised version of the diploma in pharmacy (D Pharm) syllabus for use starting with the academic year 2021–2022 with the goal of making pharmacists more career-oriented practitioners and act as a frontline healthcare provider and this will enhance the patient safety in the entire country.<sup>7,8</sup>

## 2. Revised Syllabus of D. Pharm:

Revised Syllabus of D. Pharm are:

### 1 Year

Subject Name	Theory	Practical
Pharmaceutics	Yes	Yes
Pharmaceutical Chemistry	Yes	Yes
Pharmacognosy	Yes	Yes
Human Anatomy & Physiology	Yes	Yes
Social Pharmacy	Yes	Yes

### 2 Year

All the above subjects including Social Pharmacy, Pharmacognosy, Pharmaceutics, Community pharmacy & Management and Hospital & Clinical Pharmacy possess field visit for the students during academic duration of course and these field visit help students to provide clinical Pharmacy services, patient counseling, health education and promote the role of a pharmacist in public health across the entire nation (Acc. to PCI).<sup>9</sup> The curriculum also includes 500 hours of

training (3 months) from any government hospital.

### 3. Job Opportunities After D. Pharm in India:

D. Pharm. educated pharmacists can work in community pharmacies or government or private hospitals (mostly private). Most pharmacists with a diploma opt to work in public hospitals rather than private hospitals or pharmacies. They are also given consideration for jobs in the pharmaceutical sector.<sup>10</sup>

Akram *et al.* regulate a pilot study regarding job contentment between pharmacists in their practice setting. The study's nationally representative sample indicated that Indian D. pharm pharmacists had low job satisfaction. D. Pharm pharmacists claimed that their job satisfaction was no higher than that of the "average worker".<sup>11</sup>

Studies have been done regarding D. Pharm person holding a diploma in pharmacy might have not as much as other healthcare professionals due to the large number of Pharmacy colleges in India and there is no specific entrance exam for taking admission in D. Pharm. D. Pharm holder pharmacist did not get even at present students are not getting good exposure of practical knowledge and quality of education and till now the syllabus was not matching the standard of Pharmacist as a frontline health care professionals.<sup>11,12</sup>

According to Riazuddin Ahmed *et al.* the diploma in pharmacy programme has already been disoriented with the introduction of B. Pharm and Pharm. D Course and that diploma is no longer required. He claims that a degree (B. Pharm) is the minimum need for the position of pharmacist in India, where 90% of pharmacists agree. He claimed that because pharmacy is such a broad field, two years are insufficient to learn even a small portion of it. Since hospital pharmacists in India must obtain a diploma, the medical community does not value them and frequently ignores them. However, medical professionals usually give newly graduated pharmacists some consideration. Over 90% of D Pharm students who attend universities that permit students to skip classes and practical

sessions succeed on their exams, and these institutes frequently claim big victories.<sup>13</sup>

**4. Drawback of Pursuing D. Pharm:** The following issues are the main drawbacks to continuing this course:

- Only postgraduate students are regarded as "Registered Pharmacists" in all developed nations after passing their national board exams. India is the only country that has a Diploma in Pharmacy in the entire world.
- After earning a D. Pharm, there is no need for additional coursework or bridging courses. Instead, students should consider enrolling in pharmacy courses at the new level.
- The complexity of issues relating to medical practice necessitates a high degree of subject knowledge, and the D. Pharm curriculum falls short of preparing students for practice with the necessary skill sets.<sup>14</sup>
- The D. Pharm program is operating outside of the PCI's guidelines. Even the institutions' maintenance of students' attendance is poor. The students take final exams and pass them with a high percentage of marks even though they don't attend classes or practical sessions.<sup>15</sup>

But in developing countries like India, the pharmacy education system is not so good due to financial conditions, and India is a country made up of villages that mostly can not afford and other problems not everyone can go to higher education like a Bachelor in Pharmacy and Doctor of Pharmacy, After completion of Diploma in Pharmacy a person can serve as pharmacist In a community or society just after two years. Several students are living in rural areas in India they opt for D. Pharm to practice as a pharmacist in villages or in a community so D. Pharm cannot be discontinued in India.<sup>16</sup>

**5. Exit Exam in India:** To improve the quality education of pharmacy, especially diploma in pharmacy holders and to make the diploma pharmacist more competent in the field of

Pharmacy Practice or to uplift the pharmacy profession. The Pharmacy Council of India proposed the DPEE, Diploma in Pharmacy Exit Examination Regulations, 2022 In exercise of the powers conferred by sections 10 and 18 of the Pharmacy Act, 1948 (8 of 1948), the Pharmacy Council of India, with the approval of the Central Government, hereby makes the following regulations, namely the "Diploma in Pharmacy Exit Examination Regulations, 2022" may be used to refer to these rules. They enter into force on the day they are published in the Official Gazette.<sup>17</sup>

D. Pharm holder from a recognized institution approved by the Pharmacy Council of India, who has gone through practical training as prescribed by the PCI shall go for the exit to register as a pharmacist in his/her state pharmacy council and perform the practice of pharmacy in the community pharmacy, hospital pharmacy and even to work in a clinics pharmacy. The candidate will need to submit an application in the designated format together with all necessary supporting documentation attesting to his passing the approved examination and the examination fee, as determined by the PCI.<sup>17,18</sup> In PCI circular, PCI has confirmed that the exit exam will be held 2 times in a year or frequently when needed. Based on the availability of the examination centres, the Prescribed Authority will assign the candidate the exam day and the exam location.

#### **6. According to Latest Circular of PCI Dated 14 September 2022:**

- The detailed scheme and syllabus of the exit exam will be announced by the PCI in the near future.
- There shall be One paper of multiple-choice questions in Pharmaceutics, Pharmacology, Pharmacognosy, Pharmaceutical Chemistry, Biochemistry, Hospital and Clinical Pharmacy, Pharmaceutical jurisprudence, and Drug Store Management.
- The language of the examination shall be English.

When PCI president conversed with the Indian government, they made it very clear that in any government-run or privately-run clinics or hospitals serving rural areas, a licensed pharmacist must be on hand to dispense medication and offer patient counseling. The government therefore included an exit exam in diploma pharmacy education to improve its value.

Exit exams will undoubtedly raise professional standards as they will prevent illicit activity by absent candidates. It will also shut down the operations of unlawful institutions. Since only those who pass the competitive exam can register as pharmacists in any state in India.<sup>19</sup>

**7. Conclusion:** India is the only country across the globe where a diploma in pharmacy (D. Pharm) 2 years program is a part of the pharmacy programs, in India if anybody wants to practice as a pharmacist can earn this 2 year diploma program and can practice as a pharmacist in a hospital, community pharmacy etc. but because of the large numbers of colleges in India of Diploma in Pharmacy and there is no specific entrance exam like for medical programs e.g. MBBS, BAMS, BUMS for getting admission these programs first a candidate have to appear or clear the NEET Exam even a candidate who is planning to perform a B. Sc. in Nursing will appear in NEET exam first but there is no such exam for the candidate who will be going for diploma in pharmacy, so due to this diploma pharmacist are not getting recognized in a healthcare setting.

So to overcome all these problems Pharmacy Council of India take a decision to conduct a Diploma in Pharmacy exit exam to register as a Pharmacist in Pharmacy Council for diploma in pharmacy students this Pharmacy Exit exam will help to make the competent pharmacist and improve the quality of Pharmacy education in India in upcoming time, so it's a very good decision taken by the pharmacy council India in collaboration with government of India so all the association of pharmacy working in India welcomed the decision of Exit exam.

This will surely uplift the profession of Pharmacy in India and more patient-oriented pharmacists



will produce and ultimately improve the practice of the pharmacy profession in India. Later this exit exam should be compulsory for all the pharmacy programs running in India. Like a Bachelor in Pharmacy (B. Pharm) and Doctor of Pharmacy (Pharm. D) so that our country gets good pharmacists so that every patient in India can get rationalized therapy which is the core domain of the Pharmacist In USA, Canada and Australia. In these countries, pharmacists the fully responsible for providing rational therapy and reducing drug-related problems.

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