Upcoming B Pharm curriculum will overhaul pharmacy education at graduate level: Experts

Eminent academicians and policy makers in pharmacy education have commented on the upcoming syllabus for the bachelor of pharmacy (B Pharm) course in the country, and welcomed the move of the Pharmacy Council of India.

Dr Bhupinder Singh Bhoop, Honorary Professor at the University Institute of Pharm Sciences at Punjab University in Chandigarh, has commented that the PCI's move to overhaul the B Pharm curriculum is a timely and reformist endeavour toward aligning pharmacy education with the evolving demands of the pharmaceutical industry and the healthcare sector.

"Justly emphasizing a skill-based, industry-associated, and research-driven framework, it not only offers the much-needed flexibility through Choice Based Credit System (CBCS) and subject electives, but also promotes practical training, soft skills and professional ethics. The proposed adoption of long-standing recommendations by pharma educationists, two years of holistic general training followed by two years of specialization in fields like industrial and clinical pharmacy, is a welcome move. Equally important is the emphasis on nurturing rational, critical, and 'out-of-the-box' thinking, alongside an entrepreneurial mind-set, to empower students to generate innovative and pragmatic solutions to real-world pharma problems," Dr. Bhoop told Pharmabiz.

Nevertheless, he said, implementation challenges are foreseeable, as several institutions may lack the infrastructure, trained faculty, and resources to deliver advanced modules effectively. The proposed award of a Diploma in Pharmacy after two foundational years may imperil inadequate competency in pharmacy practice without sufficient depth of training. Ensuring curriculum relevance and future readiness necessitates the consistent involvement of experts in domains such as AI/ML, 3D-printing, microfluidics-based 'lab-on-a-chip' systems, digital health, nanomedicine, telemedicine, precision medicine, QbD, PAT, and continuous manufacturing. An overloaded syllabus could eventually lead to superficial learning and academic exhaustion, undermining the very intent of fostering deeper understanding and critical thinking.

Similarly, insufficient academia-industry linkages and resistance to adopting modern pedagogies may further hinder quality education. To overcome such issues, the curriculum must be dynamically, periodically and strategically updated, allowing limited academic autonomy, particularly for the high-performing institutions, to encourage excellence and innovation, he suggested.

According to Dr Saleemulla Khan, PCI member and chairman of Board of Studies at the Rajiv Gandhi University of Health Sciences in Bangalore, the upcoming B Pharm syllabus will be a monumental work of the PCI under the visionary leadership of its president Dr. Montu Kumar Patel.

"The proposed syllabus is designed under strict compliance of the National Education Policy (NEP) 2020 to meet the evolving needs of the pharmacy profession in India at par with international standards. The syllabus envisions global outreach with ample flexibility and freedom to the stakeholders", he opined.

Dr. Khan further said the curriculum provides flexibility and freedom to higher education institutions (universities) to incorporate additional curricular requirements for a holistic development of the students of pharmacy. Flexibility to the prospective students in selection of areas of their choice to align with their dream career is an advantage of the new curriculum.

According to him the major attraction of the proposed syllabus is that it is highly structured with well distributed curriculum across four years, enhanced curriculum coherence, and well sequenced course progression. Further, the curriculum has devised well focused learning in general pharmacy to practice the profession, industrial pharmacy to leverage the focused drug development and manufacturing, and clinical pharmacy to foster the pharmaceutical care in clinical setup.

The syllabus offers well-thought experiential learning with mandatory internship programs at the end of every year to train the students for a holistic development. The syllabus can be called as profession centric-tool to bring it global standards. He opined that the new syllabus required widespread awareness programs to the teachers and the students, and expressed the hope that the PCI would look into this aspect and conduct programs to facilitate pharmacy teachers provide required information about the course content.

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