



## REVIEW ARTICLE

### NEED TO NOURISH AYURVEDIC PHARMACEUTICAL SCIENCE COURSE

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#### ABSTRACT:

In *Ayurveda*, involvement of pharmaceuticals science is not new but the concern is to whom we are assigning the responsibility of *Ayurvedic* drug manufacturing and research. In current scenario, this responsibility was carried by BAMS professional (unaware about pharmaceutical science) and graduates from modern science (do not know *Ayurveda*). Author want to draw attention toward registration, recognition and monitoring of *Ayurvedic* Pharmaceutical science [B. Pharm (*Ayurveda*) & M. Pharm (*Ayurveda*)] by either existing Regulatory bodies/council or establishment of new council. This courses are running since starting of 21<sup>st</sup> century by reputed University and produce skilled *Ayurvedic* pharmacy professionals but still there is no council for its regulation and monitoring. Students are regularly coming out having degrees (Graduates, Post graduates and Doctorates) but still they are searching of respect, recognition and opportunity to work in government organizations. In 2016, Indian Medicine and Homoeopathy Pharmacy Central Council Bill, 2016 (IMHPCC Bill, 2016) is in public domain and invite comments but it lightens a hope among *Ayurvedic* pharmaceutical graduates. Author thought it is best time to discuss how to nourish *Ayurvedic* pharmaceutical sciences so that it can strengthen the backbone of *Ayurveda* (*Ayurvedic* pharmaceuticals and related research) and how this IMHPCC Bill will act as water for newly grown plant in draught.

**Key words:** *Ayurveda*, Pharmaceutical sciences, B. Pharm (*Ayurveda*), Indian Medicine and Homoeopathy Pharmacy Central Council Bill 2016

**Key message:** Indian Medicine and Homoeopathy Pharmacy Central Council Bill, 2016 (IMHPCC Bill, 2016) is an urgent need for betterment of *Ayurvedic* Pharmaceutical Sciences.

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## INTRODUCTION

First time, in 2015 Traditional medicine (TM) system got highest recognition on platform of Nobel Prize by Youyou Tu, Professor in Chinese Traditional Medicine, for antimalarial 'Artemisinin'. She gives worthy inspiration to all the scholar working in the field of traditional medicine<sup>[1]</sup>. In Indian subcontinent, *Ayurveda* is known medical sciences since 1000 BC<sup>[2]</sup> and its wider existence till 21<sup>st</sup> century create a charm in scholar's mind for more vigorous research and such inspiration of Nobel Prize will boost the interest. So it is need of hour to invest some time, money and focus along with engagement of specialized area expert professionals for suitable and more worthy research in quest of quality, safety and efficacy. In India, The Drugs & Cosmetics Act was framed in 1940 having no separate legislation for *Ayurveda*. The drugs belonging to the *Ayurveda* was brought within the purview of the D & C Act 1940 in 1964<sup>[3]</sup>. Ministry of AYUSH is regularly drafting notifications and legislations for *Ayurveda* since starting of its journey from Department of ISM&H (1995) to Ministry of AYUSH (November 2015), but still we are lacking somewhere instead. NRHM (National Rural Health Mission) included *Ayurveda* to strengthen the medical service delivery system across the Nation and to overcome shortage of health care professionals (MBBS/MD)<sup>[4]</sup>.

National AYUSH Policy 2002 and National AYUSH Mission 2014 intensively focus on quality aspect as mandatory component and emphasize the quality service to National health care mission<sup>[5]</sup>. Ministry of AYUSH and QCI (Quality Council of India) (July 2009) came together for quality assurance with its NABCB (National Accreditation Board for Certification Bodies) & NABL (National Accreditation Board for Testing and Calibration Laboratories) and concept of *AyushMark* (*Ayush* standard and *Ayush* premium) given in Aug 2009<sup>[6]</sup>. WHO Traditional Medicine Strategy 2014-23 also focus on harnessing the potential contribution in health and wellness along with promotion of safe and effective use of TM (Traditional Medicine)<sup>[7]</sup>. When WHO and Indian Government have focus on Traditional medicine, along with its quality and safety aspect then it is best time to think on the concerning issues and lacunas in the field of *Ayurveda*. Among which ignorance of education, regulation and recognition of *Ayurvedic* pharmaceutical sciences (B. Pharm (*Ayurveda*) & M. Pharm (*Ayurveda*) is one of the main issue of concern. Current Political chairs in India also encouraging traditional medicine (by establishing a separate Ministry of AYUSH, inclusion of AYUSH in wellness sector of Make in India program<sup>[8]</sup> etc.) because of their visionary approach in policy making too (Establishment of All India Institute

of *Ayurveda* (AIIA) New Delhi, North Eastern Institute of Ayurveda & Homoeopathy (NEIAH), Shillong, Pharmacopoeia Commission for Indian Medicine and Homoeopathy (PCIM&H) has been set up as an independent autonomous Organization under Ministry of AYUSH, NAM during 12th Plan, digitalization of manuscript etc.). Mainstreaming of AYUSH is one of the strategies in National Health Mission (NHM) to improve health care delivery system. Now days, Modern medical system also needs more responsibility from pharmacy sector and modifying their strategies to empower them (PMO urged to clear Katoch Committee report). Currently ministry of AYUSH has put forward much awaited bill "IMHPCC Bill 2016" in public domain and invite suggestion and comment from public [9]. So it is suitable time to discuss about this issue on top priority to empower *Ayurvedic* pharmaceutical sciences.

### **Example of better management showing the path**

About two hundred years old Allopathic medical system put a worthy example before 3000 years old *Ayurveda* for better management of system. Allopathic system is having separate council for Doctor (Medical Council of India), Pharmacist (Pharmacy Council of India), Technical issue (*All India Council for Technical Education*), Nursing (Nurse Practice Act) etc. for better monitoring

and regulation. In allopathic system responsibilities are given to area experts of that field based on mindset as well as qualification in related fields viz. prescription right to MBBS professional, caring and handling of patients to nursing sector, drugs manufacturing and research to pharmacy professionals etc. In addition, they are monitored with related council in very stringent manner for cent percent performance. Allopathic system is very successful because they equally focus on education and functioning of each sector of medical science along with framing boost up policies for their visionary growth.

### **Lacking area**

Among many relevant concerning issues, author want to raise issue of education, recognition and regulation of *Ayurvedic* pharmaceutical sciences. In same era, similar provision like Allopathic system is not present for *Ayurveda*, so it is need of an hour to nourish the courses of *Ayurvedic* Pharmacy [B. Pharm(*Ayurveda*) & M. Pharm(*Ayurveda*)] parallelly to BAMS & MD (Ay.). It also requires similar educational monitoring by CCIM (Central Council of Indian Medicine) or there is urgent need to establish new council for *Ayurvedic* pharmaceutical science through policy making. The syllabus curriculum of BAMS and MD (Ay.) (under CCIM as per IMCC act 1970) was also designed in such a way to

make him professional more towards clinical with less emphasis on pharmaceutical manufacturing and legislation<sup>[10]</sup>. No such course was registered under CCIM to produce skilled *Ayurvedic* pharmacists graduates or *Ayurvedic* nurses. B. Pharm (Ay.) and M. Pharm (Ay.) courses have been started by reputed Universities like Gujarat Ayurveda University, Jadhavpur University, Banaras Hindu University, Lovely Professional University, Ayurvedic Pharmacy College Himachal Pradesh, Kerala University of Health Sciences with a vision to produce experts of *Ayurvedic* pharmaceutical sciences. But students are losing interest with time due to ignorance by Government, lack of registration and recognition, avoidance by *Ayurvedic* pharmaceutical industries and their eligibility issues for opportunity in government sector. *Ayurvedic* doctors are preferred over *Ayurvedic* pharmaceutical science professionals in such area (Pharmaceutical industries, academic institutions, Drug Inspectors, Quality control laboratories etc.) in which they are neither expert nor having mindset to do such job. More interestingly and discouraging for B. Pharm (*Ayurveda*) & M. Pharm (*Ayurveda*) students is that D. Pharm (Ay.) [2 year course] is present in eligibility list for Government jobs and similar opportunities, but B. Pharm (Ay.) [4 year course] are not in the eligibility list of same.

This issue is more important because any medical system cannot be accepted without effective and quality medicine and such desired quality medicine can be achieved by expert pharmacist doing drug manufacturing.

### **Regulation need to be revised**

B. Pharm (Ay.) is included in the degrees specified by the UGC under section 22 of the UGC Act and The Gazette of India, but regulatory council like CCIM or PCI (For Allopathic Pharmaceuticals) is not framed till date to monitor these courses<sup>[11]</sup>. There is urgent need of legislation like IMHPCC bill 2016 (Formerly The Indian Medicine and *Homoeopathy* Pharmacy Council Bill, 2005) that was introduced in 2005 in parliament and revised in 2006 by standing committee of health ministry but soon after introduction of National Commission for Higher Education and Research (NCHER), AYUSH dropped idea of this bill and became inactive towards *Ayurvedic* pharmaceutical sciences). In 2014 the NCHER bill is queued for its withdrawal<sup>[12]</sup>, so again Ministry of AYUSH has drafted the IMHPCC Bill 2016 in order to empower *Ayurvedic* Pharmaceutical sciences. *Ayurvedic* drug manufacturing need skilled professional who have degree in *Ayurveda* or *Ayurvedic* Pharmaceuticals, so some rule like Rules 157:2 (c) & 2 (d) in The D&C Rules 1945 need to be revised (preferably should be deleted as graduate in allied subject have no idea of

manufacturing Ayurvedic drug) and Rule 157:2 (a, b & e) should be empowered for Ayurvedic pharmacy professionals exclusively to meet quality preparation. Provision related to exemption of GMP certificate and license for drug manufacturing for doctors doing practicing and self-preparing medicine for patients should be revised and it should be issued only after proper investigation of quality of medicine and facilities for manufacturing. Qualification of B. Pharm (Ay.) for recruitment in state drug licensing authority should get preference (Rule 162-A (a) of The D & C rules 1945). More seat for Drug Inspector (DI) (Ayurveda) should be in each state to control the quality violation in the field. Recruitment for DI (Ayurveda) in each state must be in accordance with Rule 167 of The D & C Rules 1945 with preference to B. Pharm (Ayurveda) candidates to answer quality concern. Ayurvedic Pharmaceutical science needs a separate council for its monitoring and recognition in order to produce skilled professionals with mind-set of exclusively pharmaceutical work and to create for better job opportunity and extensive research in area of traditional medicine.

### **Subject Coverage of Ayurvedic pharmacy courses**

B. Pharm (Ay.) course has been designed to integrate modern pharmaceutical sciences with Ayurveda to revalidate and translate the

concepts and principles in the language of contemporary sciences as well as to incorporate recent technology and science to it. It covers vast area of Ayurveda (*Rasa Shastra and Bhaisajya Kalpana, Dravya Guna Vijanana, Sharir Kriya, Sharir Rachana* etc.), core pharmaceutical sciences (Pharmaceutics, Pharmaceutical engineering, Microbiology, Forensic Pharmacy Act Rules & Regulations & Pharmacy Management, Pharmacology and Toxicology, Pharmaceutical Analysis, Pharmacognosy etc.) along with the law relating to Drugs and cosmetics<sup>[13]</sup>. Syllabus of the Ayurvedic pharmacy courses are design in such a way to meet requirement for drug manufacturing and its management. Ayurvedic subjects are included for deep knowledge of Ayurveda before manufacturing the Ayurvedic drugs. While pharmaceutical sciences courses are pioneer for art of manufacturing the drugs and to ensure its quality and stability. In drug manufacturing, the knowledge of IPR and legislation are playing important role for marketing and getting approval from several authority following Drugs and Cosmetic Act 1940 and Rule 1945. Since, the syllabus has cover every aspect but still it needs to include some more area viz. medicinal chemistry, drug designing, bioinformatics, software mediated drug design and intellectual property rights etc. Ayurvedic pharmacy courses are needed this time to improve Ayurvedic manufacturing

sector and create more market for Ayurvedic drugs. Ayurvedic doctors are serving with their clinical practices and they have expertise in diagnosis and treatment but area of drug manufacturing still need professionals having knowledge and skill in Ayurvedic pharmaceuticals and quality control. Ayurvedic pharmacy courses can serve and fulfill this need of drug manufacturing. Separate branch of Ayurvedic pharmaceuticals courses under strict monitoring of regulatory authority may take art of Ayurvedic drug manufacturing to a new height. Present scenario reveals that professional who are unaware to Ayurveda are engaged by Ayurvedic drug manufacturers to full fill the need of pharmaceuticals in manufacturing along with some Ayurvedic doctors (who are not expertise in Pharmaceuticals and quality control). So it may have upper hand in serving the pharmaceutical sector of *Ayurvedic* medicine because it has unique combination of subjects as described above. It is the profession that links traditional sciences with contemporary sciences which is necessary to elaborate *Ayurveda* and its dosage forms with ensured quality and safety.

## CONCLUSION

Teamwork, communication and collaboration between health professionals are important for the safe and effective delivery of health care. It need similar focus by Ministry of

AYUSH in educational and monitoring system for Doctors and Pharmacist. Right decision at this time may incorporate life to B. Pharm(*Ayurveda*) & M. Pharm (*Ayurveda*) courses and will give new energy to the students engaged in it. In this regards, The IMHPCC Bill 2016 must act like water for newly constructed course in draught condition to revive it. So it is best time to nourish Ayurvedic courses to take Ayurveda at new high.

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