Ayush Medical Education: Reflections from History, Policy and the Field

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Introduction

In the 1989 issue of the *mfc bulletin,* Ravi Narayan and Dhruv Mankad carefully laid out a range of theoretical, empirical, and ethical issues related to the notion of medical pluralism, integration and related concepts.[1] Usefully, they also took us through 148 MFC bulletins with an aim to demonstrate 'open-ended scientificity' regarding various non-allopathic systems of medicine, raising the work of Banerji, Phadke, Bang, Kelkar, Priya and many others, who elaborated upon the rationales of health culture, the power of 'indigenous medicine,' the notion of polypathy emerging from a regional MFC seminar in 1977, among other critical contributions.

In most of these explorations, the issue of medical education and training itself is given passing attention, the focus largely being on compatibility and legitimacy (of systems and drugs). This paper seeks to open a discussion on contemporary medical syllabi of non-allopathic systems of medicine – admittedly in a limited fashion – that in part sheds light on these larger issues, but also proposes this as an independent domain of inquiry.

Our motivations extend in part from the Twelfth Five Year planning process, in which a number of critical recommendations were made by a separate Steering Group on AYUSH,[2] and some mention was given to AYUSH integration by the High Level Expert Group on Universal Health Coverage.[3] Drawing selectively from these inputs, the Health Chapter of the final Five Year Plan document encourages, inter alia, greater involvement of recognized non-allopathic systems of medicine (AYUSH specifically) in preventive and promotive health. It also proposes cross-disciplinary learning between modern and AYUSH systems at the post-

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graduate level, calling, additionally, for *a better understanding of syllabi at the undergraduate level so that collaboration between AYUSH teaching colleges and medical colleges may be facilitated*.[4]

Collaborative medical education pedagogy across allopathy and other systems of medicine is an intriguing prospect, but neither new nor as straightforward as it may seem (though it likely does not!). In the following sections, we provide some context to this proposition by tracing this theme in India's history, followed by summary findings from a rapid review of course syllabi. We also present interview data from a larger three state study we are conducting on integration of systems of medicine in health services delivery.[5] Finally, we link this to recent research on AYUSH faculty and student perspectives on medical education, concluding with certain provocations and questions that must be addressed in considering "integrative" medical education in India.

Historical Perspectives

Medical education in India can be traced as far back as the 7th century in the writings of Chinese explorer Yuan Chwang/Hiuen Tang, who described *chikitsavidya* as one of the five subjects compulsorily taught at the primary level and that medical science then went on to be the most developed science of the Hindu civilisation.[6] Ionian medicine or Unani, finds its origins in the third century, entering India by the 12th century and thriving in the following years with sovereign patronage, which encouraged collaborative practice and pedagogy of Ayurvedic vaids and Unani hakims.[7]

With reference to the colonial period, Sujatha and Abraham point out that the integrated medical classes across systems of medicine were discontinued upon the introduction of Macaulay's Minute on Education in 1835, and further deligitimised by an overemphasis on English pedagogy and a wide assumption that non-allopathic systems of medicine were

'closed' and opposed to 'scientific methods.'[8] They go on to say "The facts that anatomy and dissection as epistemic tools were neither entirely new to indigenous systems such as Ayurveda and that during this period several vaids and hakims learnt modern anatomy and surgery from Indian or British surgeons and some of them chose to incorporate it into the curriculum in the new Ayurveda and Unani colleges that they established are ignored…"[8(p. 7)] Rare historical analysis suggests that 'Reformists' in this period explored this "admixture" of medical education across systems of medicine, spurring many debates in the All India Ayurvedic and Unani Tibbi conference, and the inclusion of Urdu translation of terms used in the modern sciences as part of the Unani curriculum.[7] Indeed in the 1960s and 1970s, as pointed out by Sujatha, at least in the Ayurvedic curriculum, the extent of biomedical subjects covered ranged from 50 to 75% in regional academic institutions.[9]

Around this period, the Indian Medicine Central Council Act, 1970 (IMCC Act, for Ayurveda, Siddha and Unani Systems) and the Homoeopathy Central Council Act, 1973 (HCC Act) introduced provisions for the setting up of autonomous regulatory Central Councils [(Central Council for Indian Medicine (CCIM); Central Council of Homoeopathy (CCH)].[ii] These Councils had wide ranging powers to prescribe the courses of study and their duration and the conduct of examinations in medical colleges.[10] As raised by Chandra[11] and elaborated by Abraham,[12] the formation of the Central Council for Indian Medicine was heavily resisted by Shudh Ayurveda proponents, and further, the wide inclusion of biomedical subjects like anatomy, physiology and pathology in Ayurvedic curricula was viewed objectionably by the allopathic fraternity.

Concern over the content of curricula and their revision for quality has been inflected by the mushroom growth of teaching institutions during India's economic liberalisation (for current

[ii] No such central governing body exists for medical education in Yoga & Naturopathy , or Sowa Rigap (Amchi), to our knowledge.

figures, see Box 1). Under its Tenth Five Year Plan, the Government of India implemented a Centrally Sponsored Scheme "Development of Institutions," under which financial assistance was provided for the development of model colleges, which would exhibit a high quality standard of education. Around the same time, in 2003, The Central Council Acts were amended to require prior permission from the Central Government for establishing new colleges, starting new and advanced courses, and increasing the admission capacity in AYUSH colleges[13]. CCIM and CCH retained control over the setting and revision of curricula and course content: universities' roles were restricted to the conduct of examinations.

In 2006, the Planning Commission convened a Task Force for AYUSH Education, which found the curriculum and course content across systems unsatisfactory, calling for significant improvement. [14] The Task Force concluded further that most AYUSH educational institutions do not provide quality medical education, a feature compounded by poor infrastructure and lack of qualified and committed faculty. This yielded ill trained AYUSH practitioners who lacked knowledge of the fundamentals of the concerned system of medicine, and were unable to practice in accordance with the best traditions of their systems. Specifically, both Under Graduate and Post Graduate courses were described as "blindly imitative of the corresponding courses in Allopathic medicine… to the extent that the very character of the AYUSH systems gets compromised. The load on undergraduate students in terms of subjects and papers at Degree level appears to be excessive and unnecessary when compared to the load for MBBS students. The Allopathic medicine component at Degree level appears to be disproportionately large for no apparent reason." [14(p. 16)]

Under the Eleventh Five Year Plan, apart from supporting 120 proposals of AYUSH teaching institutions (mainly for infrastructural development), financial grants were given to the Regulatory Bodies CCIM & CCH for activities supporting revision of course curricula with attention to quality.[15] However, gross violations of the IMCC & HCC act regarding issues pertaining to colleges & regulation continue, as pointed out in several letters that have been sent to the CCIM and CCH from the office of the secretary, AYUSH department.[16]

Box 1. A Snapshot of the size of the AYUSH Education Sector in India

As of 2012, there were 508 colleges conducting undergraduate AYUSH education with an admission capacity of 25,586 students in India. Out of which, approximately a fifth of the intake capacity is in the Government Sector. Across systems, about 41% of the admission capacity comprises Ayurveda and 48% belongs to Homoeopathy. Maharashtra had the greatest number of AYUSH colleges (22.8%), and the highest number of Ayurveda (23.8%) and Homoeopathy (25.9%) colleges in the country. The states of Uttar Pradesh and Tamil Nadu had the most number of Unani (26.8%) and Naturopathy (28.6%) colleges respectively. This report also states that there were in 2012, 117 colleges imparting post graduate education in India, catering to an admission capacity of 2,493 students (over a third of this is in the government sector). Here, again, Ayurveda (60%) and Homeopathy (33%) dominate admission capacity.

Source: Department of AYUSH, Ministry of Health & Family Welfare, Government of India. (2012). *AYUSH in 2012. Section 4: Medical Education.* Available at: http://indianmedicine.nic.in/writereaddata/linkimages/02085

Rapid Review of Course Syllabi

In a rapid analysis of graduate and post-graduate courses in Ayurveda, Siddha, Unani, and Homoeopathy earlier this year, we found high levels of parity with allopathic medical training, echoing the findings of the 2006 Task Force. For one, there is a uniform five and a half year Degree course which includes one year of internship training. Further, there are three year Post Graduate courses in 22 specialties of Ayurveda, 6 specialties each of Unani and Siddha and 7 specialties of Homoeopathy offered by various colleges. Admission to these post-graduate courses is generally on the basis of a qualifying test, as in allopathy. We did not find any post-graduate courses for Yoga and Naturopathy.

This pattern continued in our review of web-available syllabi[iii] (updated as recently as 2012) for Ayurveda, Unani & Homeopathy on the websites of CCIM[17],[18] and CCH[19]. From these syllabi, it appears that AYUSH courses remain largely modelled on the MBBS trajectory in terms of subjects, topics, duration and the notion of the internship. Sanskrit & Urdu nomenclature is employed, but course content overlap to a great extent. Additional subjects include languages (eg. Sanskrit) and pharmacology (eg. materia medica). Under the column for reference books, all major textbooks utilized in the MBBS curriculum have been listed in addition to the corresponding textbooks of the specific systems of medicine.

As Maharashtra accounts for the majority of the AYUSH colleges in India (see Box 1), the detailed state-specific syllabus available for Maharashtra University of Health Sciences (http://www.muhs.ac.in/) was examined. From our admittedly limited perusal of syllabi from easily accessible resources, we came across the following illustrative findings. For one, the 3rd year syllabus of Ayurveda endorses the same surgery books as in the allopathy curriculum along with books from the Ayurvedic canon. In another example, the 2nd year syllabus of BUMS has a distinct module on modern medicine pharmacology. Finally, for BHMS, the standard MBBS textbooks for subjects are the same as those proposed for MBBS recommended reading.

Views from the Field

While the Steering Committee on AYUSH Education back in 2006 recommended that universities be tasked with revising curricula, the current health system leadership seems to

[iii] Obviously, from our review, we could not ascertain at what depth content from the allopathic textbooks is taught or understood. It is also not clear from these syllabi how they have been revised to address various concerns raised about the content and quality of AYUSH education.

be of the view that 'we should have a multidisciplinary team with CCIM and the Medical Council of India (MCI) to figure out norms. It all starts with science & syllabus" (Key informant from our study). Indeed the Twelfth Five Year Plan's Health Chapter proposes that "Details of modification in syllabi that would be required at the undergraduate level, in order to make such cross-disciplinary learning possible, would be worked out by a team of experts from the different Professional Councils. Collaboration between AYUSH teaching colleges and with medical colleges for mutual learning would be encouraged."[20(p.42)] On the one hand, this move from universities to councils reflects lessons from history, where the greatest impetus for advancement of at least Ayurveda and Unani systems has been when the professional associations took a leadership role.[9] Central Councils, whose mandate includes the development of these fields of medicine and the registration of practitioners, will likely be able to reflect the dominant interests of professionals (as indeed has the allopathic Medical Council of India). On the other, even if such a revision were to be carried out, the reality pointed out in a recent study is that Ayurveda, Siddha and Unani faculties across the country do not follow a uniform pattern of teaching and patient care, notwithstanding the standardisation inherent in CCIM's core curriculum.[11] If the history of teaching is any guide, allopathy pedagogy already exists in the curricula of non-allopathic systems of medicine, but is taught in varying degrees, and with variable quality. A study participant from our study in Kerala raised concern that the quality of education of allopathic subjects in non-allopathic institutions may be incommensurate with allopathic medical college training – which means that graduates may not have the skills to practice.

From the perspective of faculty and students, moreover, practical, allopathic skillsets are highly desired: a survey of Ayurveda faculty and post-graduate students (N=124) revealed that students considered their capabilities as that "of nurses and not MBBS doctors," that the emphasis on practical content was overshadowed by theoretical content in an already

crowded curriculum.[11] Unani faculty and graduates (N=55) shared the view that greater emphasis be placed on clinical and practical content, and further, that more content from allopathy be included, as well as clinical research, and that the duration of particular modules in the course had to be adjusted . Further, while Ayurveda faculty and students called for greater integration into central universities and opportunities for practice under the National Rural Health Mission, Unani faculty and students called for exposure to basic concepts of other non-allopathic systems of medicine.[iv] From the perspective of faculty and students therefore, the inclusion of allopathy is seen as a given, diametric to the view of the Task Force on AYUSH education that this overwhelms and undermines AYUSH curricula. In the case of Ayurveda, faculty and students feel allopathic content is an element to be refined and optimised, and in the case of Unani, a module to be expanded. Ultimately, for these stakeholders, the admixture across systems of medicine is desirable, especially given the legitimacy lent to their practice through knowledge of allopathy.

Concluding Remarks

These survey findings suggest that for at least some faculty and students of Ayurveda and Unani in India, allopathy is the arbiter of their legitimacy. This is in fact the kernel of critique raised by those who feel integrative medical education is a utopian aspiration, bound by unequal relations of power. In our study, the view of a senior official in the AYUSH ministry said of integration: "bringing in allopathy kills the traditional system- dilution of subject. Otherwise two systems remain separate. This is overpowering of one system and engulfing the other." Moreover, in her recent piece on integrative medicine, a veteran researcher on medical pluralism in India indicates that undergraduate training in Ayurveda facilitates the ability to enter into a dialogue in the language of biomedicine, but that "in an

[iv] Only six Siddha faculty and graduates participated in the survey; readers are directed to the report for these findings (Chandra 2012: 87-91).

interdisciplinary team, Ayurveda professional has little control over the end result of the dialogue."[9(p.118)] There is scepticism that even if the resistance of the MCI is surmounted and a joint curriculum is collaboratively worked out, it may become a process of perpetuating biomedical dominance. Such reform, these critics argue, spells major compromise for non-allopathic systems of medicine, rendering them subservient, in pedagogy and practice, to allopathy.

It seems that even with latest policy pronouncements, the age-old concern remains that the effect of such pedagogical integration of allopathic and non-allopathic systems may be incompatible epistemologically, even as integrative practice across non-allopathic systems (only) in history has appeared far less dilemmatic. (In the case of Ayurveda and Unani, this is likely because integrative practice was positioned in contestation with allopathy![7]) Perhaps it is by more closely understanding these old ways, rather than trying to craft new ones, that we can address aspirations for positive change in the AYUSH medical education scenario.

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