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Review Article

Medical Education in India: Introspection, Challenges and Reforms – A vision

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ABSTRACT

There has always been question mark on the Medical Education and health care in India right from the time of British India. Ever since its inception in 1858 the General Medical Council (GMC) of Great Britain, the regulatory authority and the British Government intentionally worked with double standards keeping the allopathic education and health care in the countries ruled by them including India at a low profile than in Britain so as to maintain a quest to go to UK for better knowledge and skills in medicine. To rectify Bhore and Mudaliar Committees were constituted in 1943 and 1959 respectively to survey and recommend development and planning for up gradation of medical education and health care in India.

The MCI inherited substandard infrastructure form GMC and kept playing the same role. It failed to realise that before British came, many systems of medicine existed in India like, Ayurvedic, Homoeopathic, Unani, Siddha, Yoga, Pranic healing etc. which English people ignored and the MCI needed to address them. They never thought to integrate allopathy with other systems of medical care for holistic approach. The concept of Integrated Medicine could never evolve.

On account of wrong policies and vested interest wrong decisions were taken one after the other. The standards of medical education and health care kept deteriorating with passing time. Consequently Indian Medical degrees got derecognised in the developed countries. The recommendations of Bhore and Mudaliar Committees did not do any good. Right from yesteryears till date most of the doctors in India from every sphere caused self-inflicted life threatening injury to the MCI and the medical profession as a whole. The National Medical Commission is about to replace MCI very shortly. This article highlights some of the major evils in the present system with suggested reforms keeping in mind the Golden Philosophy which could be embodied in the new system for better results.

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1. Introspection:

Nearing the middle of 20th century the Government in British India started realising that major reforms were needed in medical education and heath care in India and for that a detailed study of the existing system with statistical analysis was needed. Consequently the **Bhore Committee(1943–46)**, a "Health Survery and Development Committee"[1] was appointed on 25th October 1943, under the chairmanship of *Sir Joseph Williams Bhore*, (1878–1960), KCSI, KCIE, CBE, who was then ICS and Diwan of Cochin state.

The major aims of the committee were to survey the then existing position regarding the health conditions and health organisation in the country and to make recommendations for future development, in order to improve public health system in India. It was guided by lofty principals that "nobody should be denied access to health services for his inability to pay and that the focus should be on rural areas". The committee recommended major changes in the medical education besides administrative structure of health care delivery, number of hospitals, doctors, paramedics and nurses with their teaching and training facilities. The report in four long volumes was submitted in 1946 and accepted in 1952.

After independance Govt. of India appointed a **Mudaliar Committee (1959–62)**, "Health Survey and Planning Committee"[2] on 12 June 1959 under the charmanship of Padma Vibhushan Diwan Bahadur, *Sir Arcot Lakshmanaswami Mudaliar*, (1887–1970), FRCOG, FACS, Vice Chancellor of Madras University & Principal of Madras Medical College, Madras). The commtiiee worked through 6 subcommittees in which unfortunately the Medical Education did not figure. Nevertheless, the committee delt with the medical education in Chapter-VIII with its all nitty gritties and to do so it

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even interacted with distinguished medical men and administrators in foreign countries who visited India in 1961. The recommendations of the Bhore Committee was the base document to assess how much was achieved and what to recommend for future.

To my mind the formation of the Bhore committee was ill timed due to ongoing 2nd world war, with consequent huge diversion of funds of British India for military use by UK, mass human migration in the far east and west and the ongoing preparations to draw Redcliff line to partition India. On account of diverted political and administrative attention and no condusive atmosphere for any development to take place most of the recommendations were not implemented excpet for uprading all the 19 medical schools to medical colleges.

While the Bhore Committee focused only on establishment of allopathic system in India the Mudaliar Committee worked with a wider vision, taking into account other systems of medicine prevelant in India since long. In the recommendations of both the committees there were some commanalities. (i) both the committees observed wide ranging deficiencies in the number and quality of teachers, infrastructure, (ii) inadequate number of medical colleges & seats for MBBS training and other faciliteis in Medical Colleges. (iii) both took advices from individuals with special knowledge and experience in the subject, in particular, from UK, USA, Australia and USSR.

Going through both the reports the contents were eye opener. One could smell the role and intent of General Medical Council of Great Britain (GMC) and the British Government about the allopathic medical education and health care in India right from its import in 1823. Both British Government and then the GMC, the regulatory authority of medical education and health care of Great Britain including India, since its inception in 1858, intentionally worked with double standards keeping the allopathic education and health care in India at a low to very low profile as compared to UK so as to maintain a quest to go to UK for better knowledge and skills.

The Medical Council of India created in 1933[3] inherited medical schools & colleges and health care delivery system from General Medical Council of Great Britain (GMC) which was deficient practically in every sphere since per sure all this could not have happened suddenly in a short duration of 10 years when in 1943 the Bhore Committee was appointed. It is but obvious that the GMC kept on running the medical education and health care in India on a low note with the prime motive to produce assistant physicians and lecenciate doctors to take care of health needs of British Army and handed over the same to the MCI. Unaware of this the MCI, being jubilient on its birth, did not realies what it got on the platter. With time, on account of some wrong policies, step motherly treatment and vested interest the Dental Council of India (DCI) came into being for regulating education, treatment and research of a very small part of the human body, the teeth, jaws and around by The Dentists Act, 1948 (XVI of 1948.[4] Dental Colleges were opened all over the country in isolation. Lately, however, the DCI realised that it was a wrong decision.

With an overall mind set of inferiority in indians and that the west (foreign) was, is, and will always remain superior, visiting UK and USA for better knowlegde and skills continued with a sence of pride. Probably, therefore the deficiencies continued in most of the medical institutions in India, mediocracy followed, inaction grew and as a part of general social response following independence corruption creeped in and the standards started further declining. The condition kept deteriorating to a point that the Parliament of India had to dissove the Medical Council of India vide Gazette notification published in Part – II, Section-1, no. 19, dated 15 May 2010[5] and created a Board of Governors which was reconstituted twice. The marginal dividents in terms of thinking and working of the Council became visible, but a lot remained to be realised, identified and done.

With the restoration of the previous structure of MCI every thing took a quick **'U' turn**. Those waiting for the Lieutenants of the earlier regimn once again became active. Consequently the Govt, had to suspend a large number of administrative staff of MCI. The Standing Committee of Parliament (SCP)[6] in its report tabled on March 8, 2016 expressed its anguish by superlatives such as *"medical education and profession in the country is at its lowest ebb and suffering from total system failure due to corruption and decay; the MCI is an ossified and opaque body, etc., etc."* On the recommendations of the Committee the Apex Court clipped the wings of MCI and on May 3, 2016 the Lodha Committee[7] was appointed to moniter the functioning of MCI for at least one year. With a good track record of former Chief Justice Shri RM Lodha the nation started looking for a silver line in the gloomy horizon of medical education in India, provided that the MCI was quickly restructured and visionaries and thinkers in medical education entered and appointed on all important positions of the MCI.

Instead, National Medical Commission (NMC) is about to be created by the legislature, the Bill is ready. Draft is available on line.[8] The Medical Council of India will cease to exist. One can sence the intention of creating the NMC. For large scale reforms, though it has become prudent to dissolve the Medical Council of India so that things could be written afresh, there are serious doubts that the NMC will serve any good. It will be a beurocrats dominated commision where visionaries and thinkers in medical education find very low positions in some of the boards. It is a self-inflicted life threatning injury to the MCI and the medical profession caused by the doctors in medical education and health care system in India to the advantage of politicians and beurocrats.

Out of 41 years of my career in King George's Medical College/ University, Lucknow, UP, India, I gained about 23 years of experience dealing with matters related to the medical education, Medical Council of India and the University Grants Commission. I was also the faculty In-charge of MCI, DCI & UGC Cell. During this period I also gained experience of developing Prospectus of MBBS, MD/MS, PG Diploma and MSc (Anatomy), for KGMU, Lucknow and many other upcoming medical colleges, including SSR Medical College, Mauritius, Significantly I have worked as Consultant in Medical Education in Union Ministry of Health & Family Welfare, Govt. of India and conducted Inspections of medical colleges on behalf of UGC and Govt. of UP. After retirement working in a Community Hospital as a General Physician for more than five years I have realised the need of a holistic approach towards health care.

With the passage of time and experience various concepts about medical education evolved in me to a point where I could formulate a philosophy in 1999, to which I named as **The Golden Philosophy** which should be kneaded in various attempts to improve medical colleges and medical education in India.

2. Golden Philosophy:

Everyone must realise that no Medical University/Institution of Higher learning can ever be known as temple of knowledge and learning because it has produced good politicians, body builders, musicians, athletes, debaters, without any mention of excellent scholars, doctors, researchers, etc.

On one hand across the globe all outstanding medical institutions are known for their rich traditions, discipline & decorum, quality of teachers, students, infrastructure, viz., teaching technology, library, laboratories, equipments, variety and number of patients in the outpatient departments, wards and emergency.

On the other hand they are known for appropriate richness of the syllabus, curriculum, quality of teaching and training, frequency, extensiveness and share of the Internal Assessment

in the University (Professional) examination, properly structured examinations to assess knowledge, practical/clinical skills, extensive coverage of syllabus and the stringent passing criteria communication skills and attitude towards patients.

Irrespective of the name of the regulatory body, MCI/NMC, the following needs to be understood and the suggestions implemented:

3. Lack of vision in medical education and health care delivery system:

Since 1823 when the first medical institution was established in the country by the French Govt. named "Ecolede medicine, Pondicherry"[2] there was no regulatory body. From 1835 British Govt. in collaboration with East India Company started upgrading hospitals in India for training Hospital Assistants to enable them to join subordinate medical services in the army and civil cadre in British India. Initially it was two years course which was later upgraded to three years. So far there was no regulatory body either in UK or British India. In 1858 the British government, for the first time, constituted a regulatory body for medical education and health care, named General Medical Council of Great Britain (GMC).[2,13] In 1867 a broad plan of medical curriculum was formulated by the GMC[2,13] and in 1869 the Medical Education Committee appointed by the GMC decided the order and contents of the subjects to be taught; the same got implemented in India too.[2] With the passage of time more and more medical schools and colleges were opened and some others were upgraded to medical colleges to start MBBS course with low priorities on quality of teaching and training compared to their contemporary institutions in UK so that the medical degrees, diploma and membership of Royal Colleges granted in Britain remain supreme and there remains a quest in India to go abroad for better knowledge and skills.

Over the past 88 years of its existence the Medical Council of India (MCI) continued to serve as the regulator of modern (Allopathic) medicine, a role inherited from the GMC. When the MCI came into being there were about 15 medical colleges and about 19 medical schools in undivided India.[1] This number has gone up to about 426 medical colleges for about 64000 plus MBBS and 15000 plus PG seats.[3] Evidently with the present structure the situation has become unmanageable which is known to one and all.

Further, it is irony that the officers in the MCI never thought that before British came to India Ayurveda, Unani, Homoeopathic and some other systems of medicine like Herbal medicine, Acue puncture, Acue pressure, magnet therapy, massage therapy, Reiki, etc., were widely practised since good old days which required due attention and amalgamation with the allopathic system for a **holistic approach in health care**. Though the Mudaliar committee worked with a wider vision on the medical education and health care in India by including allopathic, homoeopathic, ayurvedic and unani doctors and establishments, but most unfortunately the MCI continued to focus on the allopathic system only as inherited from the GMC.

It is high time that efforts are made for the evolution of **Integrated Medicine**. To achieve this, separate councils like MCI, DCI, INC, CCIM, CCH, Paramedics and AYUSH should be merged into a **Health Commission of India** (HCI). The Commission should have 5 or 6 Regional/Zonal Offices, with all the medical institutions of the defined states attached to different Regional/Zonal offices (semi USA pattern) with sufficient powers for effective regulatory control on various medical colleges and health care hospitals of those states. For a holistic approach in the treatment every hospital should be of Integrated Medicine having facilities of treatment by all the systems of medicine.

The Central body (HCI) should be a **pool of wisdom** and vision making Act, Rules and Regulations; and planning modus operandi for execution. It should also be an appellate body for the decisions of Zonal offices.

4. Latest in Medical Science:

A lot is happening and growing globally in medical science. Super/Sub speciality courses in Preclinical/Paraclinical/Clinical subjects have grown world over but find no mention in the list of approved courses of MCI,[9] like, Neuro-anatomy, Clinical embryology and Reproductive anatomy, Musculo-skeletal anatomy, Gastrointestinal anatomy, Neuro-physiology, Endocrine physiology, Cardio vascular physiology, Neuro-pathology, Immuno-pathology, Onco-pathology, Neuro-pharmacology, Chemical pharmacology, Medical Information Technology, Genetic Engineering, DNA technology including finger printing, Bioinformatics, Biomedical Engineering, Robotic surgery, Super/Sub specialties of Paediatrics, Obstet. & Gynecs, Orthopaedics, Ophthalmic, Radiodiagnosis, Psychiatry etc. The list is endless...

Because of the above, the growth of medical education and health care in India has badly suffered. For any institution to start such courses in the academic interest or patient care, it is mandatory to send the proposal to the Govt. state/central with relevant MCI recommendations, which are NIL for many new courses. Even if a reference is sent to the MCI to allow in the larger interest of medical education/patient care, the standard answer is that the **MCI does not recommend this speciality/super speciality**. Obviously there is no vision and no therefore no growth.

5. Quality health care and Medical Tourism:

Presently it is confined to the corporate hospitals. By and large medical colleges are so poor and rudimentary in the manpower, infrastructure and work culture that one cannot think in that direction in spite of often having quality specialists. The support staff (nursing/paramedical) is not adequate in quantity, quality and training and far from satisfactory in work culture.

There should be a policy decision to establish all major super & sub specialty departments in at least all the government medical colleges and strengthen their infrastructure for bring quality health care closer to the masses who, otherwise, cannot afford treatment in corporate hospitals or travel long distances for a few govt. owned centres of excellence or go abroad. This is bound to boost medical tourism as well.

Further, one dental college each should be established in the campus of every medical college on the principle of sharing campus, departments, manpower and infrastructure including hostels, hospitals, library, etc. This will increase UG and PG seats in dental education and reduce Dental doctors to patients ration in the country. Equally important is to establish adequate number of Nursing and paramedical institutions for better quality in these sectors.

One State-of-the-Art Trauma Centre should be opened in every medical college so that the seriously injured, critically ill patients could be given quality medical care at the earliest, thus reducing mortality and morbidity.

6. MCI should effectively utilise wisdom pool available in India and abroad:

Presently some officials, UG & PG committees of MCI, Deans, Principals and the Chairmen of Medical colleges constitute the wisdom pool. The real wisdom pool in India and abroad has never been tapped. Since the country has globally opened in practically every field, viz., science, technology, education, medicine commerce, industry, management, economy etc. therefore to sustain globally the available wisdom must be utilised. Both Bhore[1] and Mudaliar[2] Committees very carefully utilised wisdom of experts from developed countries to assess the deficiencies in Indian system and to recommend reforms. It is therefore suggested that

the MCI should recognise, at least, one registered association/society of each subject in India, like:

i. Anatomical Society of India
ii. Association of Surgeons of India
iii. Physiological Society of India
iv. Association of Physicians of India
v. And like this there are academic association/society in every subject.
vi. Tap the medical educationalists and administrators in the developed countries to enrich our system where commonalities exist as practised and recommended by the Bhore and Mudaliar committees.

For years these academic societies/associations have developed curriculum, skill training programmes and better examination systems by visionaries in their subjects having lifetime experience gained from visiting various institutions in India and abroad. Their recommendations on curriculum, teaching, training, examination, research and overall growth of the specialty will certainly benefit the medical education and health care in the best possible way. Presently there is no provision to tap their recommendation and utilise. Therefore it should be made mandatory to invite them in the meetings of various UG/PG/super-specialty/research/health care committees, take their inputs and adopt the recommendations.

7. Medical Teachers:

For Postgraduate medical education the Medical Council of India religiously maintained the teacher–student ratio of 1:2 per year[9] with a cap of 1:6 at any given time. In the undergraduate medical education, initially the MCI maintained the ratio of 1:10 up to 2009[14] though the Mudaliar committee recommended a teacher:student ratio of **1:5**.[2] According to the laid down parameters of Education the teacher - student ratio in UG education should be at least **1:10** which is globally accepted in medical education as well. The MCI reduced the ratio, step by step to **1:15** in 2009,[15] **1:20** in 2010[16] to a present low of **1:25** (2015)[17] in some subjects. This has adversely affected the UG medical education. Since the MBBS/PG courses are skill oriented learning modules where short group teaching is mandatory the MCI must increase the ratio to at least **1:10** if not **1:5**.

It is mentioned in the recommendations of both Bhore and Mudaliar committees that the country needs more medical colleges for training more MBBS doctors so as to achieve a doctor–patient ratio of 1:1000 recommended by the WHO. The MCI in 2010 and 2011 increased PG and Super specialty seats in almost every medical college countrywide so that more PGs could be available. The dividends started coming from 2013 onwards as more and more PGs became available for faculty positions but suddenly in 2015 it was a bruit shock to the medical world when the MCI took a quick **'U' turn** and reduced the number of teachers needed for teaching 50/100/150/200/250 MBBS admissions. Consequently many teachers lost their jobs. This mistake should be rectified by the MCI and the ratio not lesser than **1:10** should be immediately restored.

8. Qualifications:

In the Rule book of MCI qualifications and experience for each teaching position is not clearly defined.[11] Even the equivalence of recognised qualifications for teachers is not clearly spelled out and often not mentioned. There are no MCI regulations about **M.Sc., Ph.D. and D.Sc.** in subjects like Anatomy, Physiology, Biochemistry, Microbiology, Pharmacology, Medical Physics, Radiation physics, Medical statistics, Chemical Pathology, Chemical Pharmacology etc.[9] whereas as per MCI norms these qualifications are essential for non-medical teachers.

9. Promotions:

A new approach of promotional avenues of the teachers by **6 tier system** – from Lecturer to Director Professor should be introduced as given below:

Lecturer/Senior Resident	**3 years**	Assistant Professor
Assistant Professor	**5 years**	Associate Professor
Associate Professor	**5 years**	Additional Professor
Additional Professor	**5 years**	Professor
Professor	**5 years**	Director-Professor

A candidate with MD/MS/DNB with three years of teaching experience as Junior Resident or equivalent who has cleared EXIT – PG exam should be eligible for appointment as Lecturer in Specialty courses. The Super-specialty faculty should start from Assistant Professorship onwards.

For appointment as Associate Professor the Teachers' Training in Medical Education technology should be essential. Similarly for appointment as Additional Professor the knowledge of MCI regulations along with Administrative & Financial training should be desirable. For Professor and Director-Professor knowledge/experience of establishing department/unit/lab/research supervision/funding projects etc. should be desirable.

The suggested **Promotion Model** is a journey of 23 years wherein a Lecturer joining as the faculty at the age of 30 years will become Assistant Professor at 33 years, Associate Professor at 38 years, Additional Professor at 43, Professor at the age of 48 years, Director-Professor at the age of 52 years and is expected to be so till retirement, i.e. up to the age of 70 years. Within the proposed model an Assistant Professor will become a PG teacher after 2 years of teaching experience as per current MCI norms[11] and an Associate Professor will become eligible as PG examiner.[9] Generally speaking from the status of Additional Professor onwards one becomes eligible to be member of strategic committees where maturity in planning and vision in medical education is expected. Therefore the present regulations of becoming full Professor after a duration of 11 years, age of about 39 years is rather premature and therefore not recommended.

To strengthen and bring **excellence in teaching** and clinical work the concept of *clinical teachers* (for clinical work), *academic teachers* (doing teaching, projects & research work) should be brought into rule book of the MCI. Further, the Council and the Govt. should allow *floating posts* to attract the best. Making provision for *adjunct faculty*, *visiting faculty*, *distinguished professor*, *professor of eminence*, *emeritus professor*, *chair professor*, etc., is yet another step which is bound to bringing excellence in academic, clinical and research programmes of the institutions.

The teachers will do their job well if they remember and practice the Dogma which I have been preaching and following for the last 20 years or so as ***(i) Acquire knowledge, (ii) Analyse knowledge, (iii) Assimilate knowledge, (iv) Impart knowledge using appropriate filters, (v) Evaluate knowledge, and (vi) Create knowledge***.

10. PG students not recognised as teachers:

The existing Rule book of MCI[9] does not recognise PG students/Demonstrators/Junior Residents or equivalent as teachers. Though practically they teach undergraduate MBBS students, paramedical, nursing staff and medical officers in OPD/IPD teaching and CME as per another Rule book of MCI on Postgraduate education. Further, when we talk of teacher-student ratio of 1:10 it means Professor-1, Associate Professor-2, Assist. Professor/Lecturer-3, Demonstrator/PG-4. This anomaly should be settled in favour of PG students recognising them as teachers. This will be an effective driving force for the PGs to read

thoroughly various topics of common interest which in turn will benefit both UGs and PGs. Evening wards are the best place to utilise this manpower in UG teaching.

11. Equivalent qualifications:

The irrational and disproportionately rigid stand of MCI on derecognition of qualifications obtained from abroad since 1941 to mid-1960s has harmed both medical education and health care in India. Instead of improving quality of infrastructure, teaching and training of UG and PG education in the country, the Council derecognised qualifications such as MRCP/FRCS/MD (USA) and PG qualification of American Board of Medicine and many others for the reasons best known to them.[12] Thinking themselves as supreme the MCI even fought tooth and nail for more than a decade not to recognise DNB as equivalent to MD/MS/DM/MCh. Though everybody in the medical world knows that it is far more difficult to pass DNB examination than MD/MS etc.

The MCI should shun the policy of **tit-for-tat,** come out of the dilemma and recognise foreign qualifications after examining all the criteria to do so. This will increase availability of PGs for appointment in medical colleges and more man power for health care in govt., private and public sectors hospitals thus improving health care structure of India. Our country needs 5 lac more doctors according to latest reports from MCI in July 2016. The Govt. is all set to open more medical colleges to achieve the doctor-patient ratio of 1:1000.

12. MCI and University inspections and their effects:

A. MCI Inspections: Checks and balances are a must for any system to remain on track and grow in the right direction. But for the past about 15–20 years the lesser said better it is. Of late surprise inspections have become a rule hanging like **Sword of Domiciles.** They happen mindlessly regardless of local conditions like Professional examinations, on-going conference, financial year closing, head of the institution being out, local holiday etc. Somehow the inspectors start behaving as dowry hungry bridegroom and his relatives during the inspection.

The mutual trust has gone. **On one hand** the MCI inspectors shamefully insisting to physically verify lady teachers/residents lying on labour table of the institute being inspected; insisting on surgeons and anaesthetist in OT to come out for physical verification by such a time which is not feasible, not counting teachers on medical leave, gone for teacher training course, as examiners, selection committee experts, conference, etc. etc.

On the other hand both Govt. and Private Management have developed expertise in adopting fraudulent practices to arrange manpower and infrastructure for the institution for MCI inspection. They are even *flouting the minimum norms* to establish and run medical colleges. Even newly established AIIMS and State Govt. medical colleges have joined the same race.

What is the remedy? The answer lies in moral values, national character, truthfulness and commitment. A decent way has to be found out.

B. University Inspections: There are time old UGC regulations that all the constituent, associated and affiliated colleges of the University/Deemed to be a University should be inspected from time to time for infrastructure, manpower, equipments etc., and if the University regulations are being followed. viz., various boards/committees like, Executive Council, Acamedic Council, Admission Committee, Departmental Committees, Curriculum Committee, Board of Studies, Board of Faculty, Examination Committee, Purchase Committee, Finance Committee etc. are being regularly held. For the Universities/Deemed Universities having constituent Medical Colleges this exercise should be done by a panel from other university.

13. National & Institutional Goals in UG and PG Medical Education:

The goals for undergraduate medical education were formulated and published in Regulations on Graduate Medical Education 1997.[10] But it could be any body's guess as to why the Medical Council of India did not, so far, formulate goals for postgraduate and super-specialty education.[9] These goals (National and Institutional) should be framed without any further delay. Further, they should be reviewed every 5 years in accordance with the changing needs of the country/regions.

14. Commencement of MBBS Session:

The present over lap of 2 months (August and September) in which on one hand the academic session starts in the medical and dental colleges from 1st of August[10] and rounds of counselling for admission also continue with the last admissions up to 30th of September each year because it is in accordance with the judgement of Hon'ble Apex Court. This overlap is illogical and foolish.

The session should commence only after all the rounds of counselling are over providing sufficient time for clearance from the medical board and completion of other admission formalities etc. **This overlap has adversely affected BDS and AYUSH education in the country.**

Since as per existing law all the admission formalities by various medical colleges should finish so that no admissions to the MBBS course are made after 30th September, therefore the academic session should start from **1st of October** each year instead of 1st of August.

15. Duration of MBBS course:

The duration of any course depends on various factors, viz., vastness of curriculum & syllabus, time required to learn the skills and achieve goals, acceptability in academic world, reciprocal global recognition for credit transfer, jobs and venues for higher learning abroad.

Since 1867 the duration of MBBS course was 5 years till 1962. On the pretext of quick availability of doctors for Army, Govt. and in public sector the duration was reduced to 4½ years from 1963 onwards which continues till date.[10] World over the minimum accepted duration of MBBS (or equivalent) course is 7 to 10 years. In USA, Australia and some other nations apparently looking 4 years course is actually **4 + 6** years (4 years graduation + 4 years of medical school + 2 years of internship to practice independently; in case one wants to specialize then 3 to 4 years of Residency after medical School).

For long, many subject experts in the medical colleges in India have realised that on account of rapid evolution of modern medicine the curriculum and syllabus has increased many folds and that they are finding hard to complete the syllabus in 4½ years and the students are very stressed on that account. Recently for the same reason the duration of MDS course was increased by DCI from **2½** to **3**years.[4]

It is high time that the duration of MBBS course be increased from **4½ years** to at least **5½ years** with one year of compulsory rotator internship. Of these additional 12 months, 6 months should be added to Preclinical period and the remaining 6 months in the clinical period to cater to the increase in the syllabus of preclinical and clinical subjects since MCI Graduate Regulations of 1997.[10]

There is strong justification for the increase in Preclinical period. Besides the reasons mentioned in the first para, the curriculum has increased over the years. Further, in the initial period after admission, learning is slow due to emotional problems with the students, since most of the students leave their homes for the first time and on account of language constraints there is initial slow grasp, therefore the teaching has to be done at a slow pace,

which is yet another reason for more time required in the preclinical period.

16. Introduction of True Semester system:

So far, in the MBBS curriculum the MCI recommends a 9 semester course[10] but in reality it is pseudo-semester system. A true semester system should be introduced with in-semester (Day to Day) and end-semester examinations. The curriculum of one semester should not overflow in the next semester. This will go a long way to reduce the burden/stress on students. Of course, this will need to restructure all the Professional examinations into end semester exams.

17. Internal (Day to Day) Assessment:

Is a system of assessment which necessitates students to study the given curriculum again and again which increases the understanding and the residual (ready -in- hand) knowledge of the students. It has several advantages, viz.

i. Better performance in the Terminal/Professional (end-semester) examination.
ii. This is the trump card of a good doctor in OPD, IPD, off-hand discussion with patients and their relations, during surgical work, diagnostic labs; a good teacher in class room, off-hand discussions with students (UG & PG) and a good research guide for thesis & research supervision, etc.

The MCI has mindlessly fiddled with the internal assessment for trivial and unfounded reasons reducing it from 50% (till 1962) to 25% (till 1984) to 10% (till 1996) to 20% (till date).[10] In 2007 during the MCI Workshop held at Bangalore there was an all-out effort to do away with internal assessment as in some states/colleges it was being misused. But on account of majority disagreement it could somehow stay at 20%.

50% → **25%** → **10%** → **0%** → **20%**.

For the reasons mentioned in para-1 and clauses (i & ii) above in USA, UK, Europe, etc. it is as high as **75%** on account of which the students really learn day in and day out. Even in India, Dayalbagh Educational Institute, DEI Deemed University, Dayalbagh, Agra it is 75%. To begin with the Internal Assessment of **50%** is recommended which should be raised to 75% after 5 years.

18. Marks distribution in various Undergraduate subjects:

Distribution of marks for various subjects of MBBS course is faulty, but at the same time it is mandatory due to Gazette notification of Graduate Medical Education Regulations, 1997.[10] Presently the maximum marks range from 100 to 300 for the curricula of 100 hours to more than 1000 hours in various subjects.

Because of this regulation of MCI, during Professional examination, with only 5–10 marks with each examiner it is hardly sufficient to gauge the knowledge/performance of students and extraordinary students.

It is suggested to rationalise the marks allotted to each subject based on the number of hours to cover the curriculum of each subject rather than raising the issue of importance of different subjects. For this four slabs are suggested:

Hours of curriculum	Maximum marks	Internal assessment
100–300	400	200
301–600	800	400
601–800	1200	600
801 and more	1600	800

19. Grace Marks in UG exams:

The present MCI regulation[19] is that “up to 5 grace marks may be awarded in one subject provided the student has passed in all other subjects of that examination,” The figure of five(5) is illogical.

Five (5) grace marks out of 100 means 5% while out of 300 they are barely 1.67%. The Grace marks, if at all, should be changed in terms of percentage of total marks. Further, it should also be decided whether the grace marks are to be mentioned in the mark sheet because it affects merit later in life.

20. Exit Exam – UG & PG:

On account of wide ranging differences in the infrastructure, OPD & IPD attendance, quality and depth of teaching syllabus and availability of skill training, level and method of professional and day to day examinations, criteria other than merit, to pass, it has become essential to introduce both EXIT– UG/PG exam, once in six months.

For undergraduate (MBBS) doctors it could be on the lines similar to the one already being organised by the MCI for Indians doing MBBS from foreign countries.[12,18] As envisioned in the draft of National Medical Commission Bill-2016 EXIT – UG exam and PG Entrance exam should not be the same for the following reasons:

National Licentiate Examination:

1. This examination is actually Exit – UG exam for doctors who qualify from India and abroad.
2. To be conducted after completion of Compulsory Rotating Internship Training to obtain Permanent Medical Registration from MCI or State Medical Faculty to Practice/do job/PG studies, training, learning in India or abroad.
3. This is a qualifying examination where the questions are of average level (50–55%) of difficulty index without negative marking.
4. Failure in this examination will mean not allowed to handle patients independently. The temporary registration given before start of internship can be extended for a further period. The candidate improves his/her knowledge and skills from parent or any other institute and can reappear after 6 months to qualify.

PG Medical Entrance test:

1. To be conducted to qualify for admission in various PG courses viz., MD/MS/MDS/DNB/PG Diplomas in India.
2. PG Medical Entrance test (NEET-PG) is a Competitive examination where75% questions are of average difficulty index and about 25% questions are of higher difficulty index, with negative marking of usually 25%.
3. Failure to cross the cut off line in examination or unable to get the desired PG seat/institution will mean that the candidate can appear in the next examination.

Under no circumstances the students should be allowed to handle patients unless they clear exit exam which should be a blend of assessment of knowledge and skills through structures MCQs.

Similarly for the postgraduate and super-specialty courses an EXIT – PG exam. should be designed. They should not be allowed to practice the super/sub specialty or appointed on the teaching posts unless they have cleared this exam.

21. Internship Training:

The comprehensive Internship Training Programme is beautifully envisaged in the Graduate Medical Education Regulations, 1997, **Objectives** (MCI, chapter-V, clause 2), and **Skills** of Internship recommended by the MCI, to be acquired by the MBBS Intern, MCI (chapter–V, clause Appendix B).[10] This training is

mandatory for the award of the Undergraduate medical degree (MBBS). The list needs some add on.

This training is vital and extremely important for a MBBS doctor to work independently and which was very religiously done before the invention of the PG entrance test around 1985. Almost 31 years have passed and we have sufficient formal & informal feedback of what is happening during Internship Training period, viz. most of the Interns are:

i. Avoiding training from the Medical Colleges due to more working hours there.
ii. Going sometimes/seldom in the District/Taluq Hospitals for training.
iii. Obtaining the internship completion certificate without properly/actually doing it.
iv. Further, most of the Distract/Taluq level hospitals do not have experts of every discipline and the infrastructure required for internship training.

Therefore the internship can only be properly done by doing the training from the Teaching Institution with good exposure of community setup through the Department of Community Medicine, and the best institution will obviously be his/her **own medical college**.

Further when these medical graduates join various medical services in state/central govt. or private hospitals or PG courses as Junior Residents or equivalent positions initially they do not have hands on experience to handle the patients and actually start learning Internship work at that stage.

BUT WHY SO

The Interns have a hard pressing compulsion to prepare for the PG Entrance Test of their State/All India and certain group of Institutions conducted soon after completion of Internship Training Programme mostly in the months of January/February which could be NEET (PG) in the years to come. For this cut- throat competition on about 15,000 seats they need to study 6 to 8 hours daily during the Internship Training period. **From where does this time come?**

22. Postgraduate Entrance examination [NEET-PG]:

It is wrongly timed for the reasons mentioned in Clause -21 above. So far there is no good agency in the country which could conduct the All India PG entrance test to perfection. Till date paper leak, impersonation and back door entries are rampant. Added to all these are all kinds of reservations which are extremely frustrating for the meritorious students. Joining DNB was one way out which has also been blocked.

It is suggested that only EXIT – UG exam qualified should be allowed to appear in PG entrance (NEET-PG) exam of All India level one year after the completion of internship.

Moreover, it should be mandatory for the Govt. (central/state), MCI and NEET-UG authorities to finish all the rounds of counselling, extended counselling and admission formalities in PG courses before the start of academic session. There should be no admissions on any pretext once the session has begun.

23. Courses not recognised being run:

On one hand regardless of the MCI *regulations the courses/ institutions not recognised* are running, imparting teaching & training year after year. The pass outs are getting jobs in govt. and corporate hospitals, admission in higher courses and even appointment as teachers in medical colleges. The public cannot identify who are such doctors in the society whom they visit and are being treated.

On the other hand the institutions having good infrastructure, State-of-the-Art facilities as per MCI norms are denied adequate number of Postgraduate and Super speciality seats for various obnoxious reasons.

The nasty concept of teachers appointed/transferred from one institution to the other, for inspection, is now well established and widely practised by Govt. of India, various State Govts. and Private managements. It is to my knowledge since 1984 till date. Even the infrastructure and equipments are shared between colleges. They reach where the MCI inspection has to take place. These things are rather, encashed by MCI personnel for obvious reasons.

24. Students' Union in Medical Colleges:

The latest regulation of MCI[20] that there will be STUDENTS' UNION in every medical college is unwanted and suicidal. The medical colleges with attached hospitals are composite campus where thousands of sick to very sick people come for treatment. Hundreds of patients are admitted every day in various wards and terminally ill in ICU, ICCU, NICU and Ventilator units. The campus should be noise free and quiet. Treatment and teaching go hand in hand which are very demanding. Taking everything in totality the provision of Students' Union in Medical Institutions will be a nuisance and hence the provision should be **scrapped.**

Conclusion

In the end I exhort all who matter that keeping the Golden Philosophy in mind create **Health Commission of India**, bring all councils under one roof, the commission and the councils be manned by persons of wisdom and vision in medical education and health care, take suggestions from various academic bodied (associations/societies), experts from abroad and amend Rules and Regulations for betterment of medical education and health care. **Let Integrated Medicine evolve in India**.

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