Review Article

Challenges in medical education

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ABSTRACT

Medical education in India is at crossroads confronted with numerous serious challenges of monstrous proportions looking at virtual collapse adversely affecting the mindset and quality of doctors under the hypnotizing influence of corporatization and commercialization converting doctors into materialistic, self-centred, without values of sacrifice, service or commitment to the country as well as depriving the poor brilliant students a chance to become a doctor. The challenges in medical education are different for public medical education such as poor work environment, bureaucratic interferences, lack of funds and dilapidated infrastructure, whereas challenges in private medical institutions are generally about rampant and open illegal and unethical practices, excessive commercialization and being obnoxiously expensive. Moreover, both public and private medical institutes are governed by ineffective regulatory institutions like State Medical Councils and National Medical Commission. During COVID-19 pandemic, miserable deficiencies were exposed in our public health care and exploitation by private health institutions because of progressive deterioration and increasing commercialisation of medical education. All these factors seriously impact the health-care system both public and private leading to increased attention and focus on the state. Even with 541 medical colleges, medical education in India still needs revolutionary and urgent changes to fulfil the healthcare needs of the nation.

Keywords: Challenges, India, medical education

INTRODUCTION

In ancient India, Charaka and Sushrutha had their own doctrines of medical education in indigenous system of medicine,[1] and during the British rule, medical schools were established to provide scientific western medical education[2] and more colleges were started after independence. The Shrivastav Committee in mid-1970s suggested reorientation of medical education according to the national needs and priorities.[3] Today as India is aspiring to become global power, medical education is expected to play crucial role producing competent, ethical and efficient doctors to fulfil the goal of overall development of the nation. Medical education system in India is one of the largest in the world, but at crossroads confronted with numerous challenges, problems and controversies facing an uncertain future may be total collapse but certain to dangerously affecting our health care system both public and private.[4]

CHALLENGES IN MEDICAL EDUCATION

India has the largest number of medical colleges and medical profession has been one of the most preferred professions, but today, the dream of becoming a doctor has been faced by numerous hurdles. Steadily, deteriorating medical education is failing to deliver quality and quantity of medical professionals capable of fulfilling the societal needs. We are going to very briefly discuss the challenges in medical education in this article. More over because of paucity of documentation in medical literature, this article is largely based on media reports, personal observations, experiences and interactions

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with various stakeholders.[5-9] Some readers might not agree about the pathetic state of medical education, but we think their disagreement is certainly justified because they might not have been exposed to the actualities of the prevailing deplorable state of medical education and it could be much worse in some of the medical institutions.

RAPID AND UNEVEN GROWTH WITH REGIONAL IMBALANCE OF MEDICAL COLLEGES

Since independence, there has been rapid proliferation of medical colleges, from 23 all government medical colleges in 1947, the number grew from 387 to 596 between the year 2014 to 2021 and MBBS seats increased by 72%, from 51,348 seats to 88,120 seats and post-graduate (PG) seats increased by 78%, from 31,185 to 55,595 between year 2014 to 2021 as per data presented in Lok Sabha on 10th December 2021 by Minister of Health and Family Welfare. The National Medical Commission (NMC) website shows that more than 50% of the medical colleges are in five states, 70 in Karnataka, 68 in Maharashtra, 62 in UP, 57 in Tamil Nadu and 32 in Andhra Pradesh.[10-12] This regional imbalance is said to be because of political patronage or commercial enterprises rather for social service. Disproportionate and rapid growth of medical schools has led to several problems out of preview of this chapter.

COMMERCIALISATION AND PRIVATISATION OF MEDICAL EDUCATION

Medical education reforms in the 1990s, increased commercialisation and privatisation of medical education with easing of conditions to open private medical colleges promoting the concept of buying medical college seats lead to skyrocketing capitation fee and increased corrupt manipulations in admissions. Commercialization of medical education has affected the mindset of young doctors making them more self-centred, materialistic, without values of sacrifice or commitment to society and directly affecting the students from poor and deprived sections of society. Even after the establishment of NMC in 2020 mandated to reduce fee of at least 50% of medical seats, private medical colleges substantially increased the fee, making it out of reach of most of the students. Cultivation of commercial rather than ethical medical education has completely eradicated humanitarian and societal aspect from medical profession converting it in a very lucrative and profitable business. Now for past few years government has opened several new government medical colleges including about 22 All India Institute of Medical Sciences (AIIMS) which is a welcome step, but still continue to ignore the pathetic state of already existing public medical institutes.

CORRUPTION IN MEDICAL EDUCATION

Corruption in medical education is rampant and is of different types in private or public medical colleges. During Medical Council of India (MCI)/NMC inspections worst kind of gross corruption and unethical practice were encountered when hundreds of people were mobilized to fill up empty wards, numerous ghost faculty is paraded, outpatient department (OPD)/inpatients/birth/death registers are manipulated, inflated and even instruments are hired and still, private medical colleges managed to get MCI/NMC recognition under the influence of cash, kind or political patronage.[13] The formation of NMC has not changed such malpractices at all that even after National Eligibility cum Entrance Test (NEET), many private medical colleges started charging under-the-table money in addition to high fees for admissions just falsely reassuring the parents of reserving seats in advance. The worst type of corruption is seen when the grossly deficient attendance of students are compensated and undeserving medical students manage to pass the examination in the lure of cash or kind. Several other aspects of corrupt practices can't be discussed here because of space constraints.

DILUTION OF BASICS REQUIREMENTS TO INCREASE UNDER GRADUATE AND PG SEATS[10]

Indian health care system confronted with serious challenges of quantity and maldistribution of health care professionals and unfortunately, to correct it, the policy thrust recently has been on increasing the undergraduate (UG) and PG seats by relaxing the basic requirements for establishing new medical colleges as well as to offer PGs seats regardless of basic infrastructure, minimum qualifications for the PG teachers has been reduced from 5 to 2 years and super-speciality teachers from 8 to 6 years, relaxation in number of research publications for faculty at all levels, professors and associate professors can now guide 3 and 2 PGs, the pass criteria for PGs reduced from 50% to 40% in theory papers. Such a dilution of basic requirements are thought to compromise the quality of teaching and medical learning which will produce doctors little better than the quacks, endangering the lives of millions. This has been documented by a study from University of California, Georgetown University and the Global Health Bureau on the quality of Indian doctors showing better medical knowledge among people without any formal medical training in Tamil Nadu and Karnataka as compared to qualified and trained doctors in Uttar Pradesh and Bihar. All senior doctors must have observed that 40 years ago, only MBBS doctor was conducting all kinds of operations and speciality OPD that too very competently with excellent teaching abilities as compared to the present where most of the interns and MBBS doctors fail to differentiate between

the basic types of medical equipment, cannulas or catheters what to say about prescribing the basic doses of medicines.

FLAWED SELECTION PROCESS FOR MBBS AND PG STUDENTS

An academician stated that the selection for UG as well as PG courses based on Multiple Choice Questions (MCQs) is flawed as students from 10th class onwards start preparing for NEET (UG), then during MBBS for NEET (PG) and then for super-speciality entrance focus on just MCQs banking on rote learning, compromising every stage of medical learning from the basic MBBS, the internship training, PG training and super-speciality training. With the result those who can't move to the next level from MBBS to PG and from PG to super-speciality are miserably ill-prepared to treat the society because we are producing MCQ doctors, not the doctors trained in both art and science of medicine. More over the percentile system of NEET has played havoc with merit by admitting students with just 18-20% of marks in NEET aggregate or even zero in a subject making it very easy for wealthy low-performers to get expensive seats in private medical colleges.

A study in 2012 funded by the Bill and Melinda Gates Foundation in India regarding medical education stated that 'training in and of itself is not a guarantor of high quality' and our health secretary (from 2009 to 2010) Sujatha Rao told Reuters that the market has been flooded with doctors so poorly trained that they are little better than quacks.

Recently, the introduction of National Exit Test to 'standardise' medical education seems to be a great initiative but has inherent flaws because of severe inter-state as well as medical college to college disparities, gross differences in infrastructure, teaching faculty, lack of clinical material in private medical colleges, high quality of students in government medical colleges and poor merit students in expensive private medical colleges as well as structural shortcomings, which may lead to further proliferation and consolidation of the coaching centres rote learning by students even with implementation of revised competency-based medical education (CBME) based curriculum. Studies suggest that coaching-based exams tend to be disadvantageous to poor or marginalised students and may prove to be exclusionary and monopolistic of the rich and privileged class who will not be inclined to serve in rural areas and address the social determinants of health.[9,10,14]

ROLE OF UNIVERSITIES AND COLLEGES

In grooming the young students, universities and colleges play an important role but the present heightened commercial environment of private medical colleges resists change in curriculum because of the extra cost needed for upgrading infrastructure and faculty training. Professional ethics and 'Hippocratic oath' has been taken over by profit focused business ethics influenced by commercialization converting young doctors more materialistic and self-centred, without values of sacrifice or service to the country. The recent decade has witnessed rapid proliferation so-called deemed universities with severely deficient infrastructure, manpower, non-existent innovations, grossly deficient research, almost absent internal faculty development and such institutions thrive on open and gross illegal and unethical practices. How on earth one can think that such institutions will be able to produce good doctors who will provide ethical and academic research competent to fulfil societal needs?

ROLE OF THE REGULATORS LIKE STATE MEDICAL COUNCILS AND NATIONAL MEDICAL COMMISSION

The role of regulators is larger than life for maintaining academic, moral and ethical standards of medical education, but unfortunately, their role has been questioned. MCI was dissolved in 2010 following allegations of corruption by MCI's president and Parliamentary Standing Committee on Health and Family Welfare in 2016 reported that MCI has been responsible for the prevailing deplorable state of health care, decreasing standard, promotion of corporate hospitals and unethical practices and so recommended formation of an NMC,[15-17] but NMC has failed in its objectives and private medical colleges continue to charge very high fee, stage manage the drama of NMC inspections with advance information of surprise inspections is still prevalent, continue with ghost faculty and dummy patients and more importantly failed to take action inspite of visual proofs and written complaints. To fulfil the mandate of the government to increase UG and PG seats, NMC is compromising on the quality of medical education, teaching and learning activities, standards of admission, evaluation, facilities, teacher adequacy and infrastructure. The NMC's bill was projected as a revolutionary step to revamp medical education, but I feel that only time will tell how revolutionary it can prove to be. Most recently, editorial in The Times of India on NMC decision to replace the Hippocratic Oath with the Charak Shapath Oath stated that NMC's mandate will be better served by boosting the actual medical infrastructure in the country rather than irrelevant issue of the type of oath.[18] State Medical Councils have only cosmetic role, registering doctors and awarding CME credit hours and has miserable failed to enforce ethical, legal practices, curb quackery and cuts and commissions.

CURRICULUM REVISION

Change is a natural process and resistance to that change is also inherently natural, so change in decades old traditional

curriculum by the CBME has led to a turbulent change[19] encountering natural resistance from students, teachers and more importantly management. Despite the broad endorsement of CBME, a major concern is expressed about reductionist approaches in CBME, practical, logistical and administrative challenges, conceptual or theoretical issues, inconsistencies in CBME guidelines and lack of universal timetable and assessment mechanisms which may result in 'missing the forest for the trees'[20] which requires critical insights into the operationalisation of CBME.[21] But we have serious doubts about whether the change in curriculum implemented under the hypnotizing influence of privatization, corporatization and commercialization of medical education will be able to produce empathic, ethical, compassionate future doctors competent to fulfil societal health-care needs rather than adopt market-private-corporate culture. Moreover, severe shortage of clinical material in most of the private medical colleges will render the curriculum change ineffective. Apart from the curriculum, it is said that the role of medical teacher is like a 'sage on the stage rather than guide by the side',[22] so experts argue that these ethical and moral values cannot be formally taught by the change in curriculum but students in old days use to inculcate these values by observing their teachers who acted as their role models also known as the 'hidden curriculum'.[23]

POOR INTERNSHIP SUPERVISION

Internship training which was supposed to inculcate clinical and communication skills is severely compromised because almost all interns join coaching institutes to prepare for their entrance exams and are grossly undertrained to practice as primary care physicians, thereby adversely affecting the health care system as a whole. Moreover in most of the private medical colleges, services of interns are utilised for preparing dummy case files and manipulate registers, further compromising their clinical training.

RESEARCH ACTIVITIES

Studies suggest that about 57% of Indian medical colleges do not have single research publication in last 10 years and majority of research publications were from three medical institutions i.e., AIIMS Delhi, PGI Chandigarh and CMC Vellore.[24] NMC requirement of publications for promotions and PG degree has lead to the proliferation of paid journals which forced NMC to revise the criteria of approved indexed journals in NMC notification dated 12 February, 2020. Such a measure by NMC will promote good quality research, but absence of any credit for research publications in admissions to PG or DM courses will discourage research publications.

SHORTAGE OF MEDICAL TEACHERS

The shortage of medical teachers is posing a great challenge to medical education which is especially getting worse with the rapid proliferation of both private and government medical colleges mainly because medical teachers prefer lucrative corporate jobs rather than unfavourable conditions in medical colleges on the current terms and conditions.[25] More and more medical teachers prefer to act as ghost faculty with handsome salary to fulfil the faculty requirements of NMC in private medical colleges thus, adversely affecting the education standards. The faculty does not like to join government medical colleges because of poor work environment, threat of transfer, extra administrative responsibility, suboptimal infrastructure, man power and budgetary constraints.

MEDICAL EDUCATION DURING COVID-19 PANDEMIC

Medical education has suffered most during COVID-19 pandemic disrupting the well-established, traditional physical teaching and shifting on to online teaching and assessment affecting students' psychological wellbeing and impacted their academic trajectories, so much so that memes appeared on social media for extreme caution to people availing medical services as new batch of online educated doctors will enter health care system.

IMPACT ON HEALTH CARE SYSTEM

Under the hypnotizing influence of increasing commercialization, medical education in India today is producing medical professionals with compromised ethical and moral standards in this new lucrative 'Medical-Industrial complex' where patients are 'consumers' and healthcare a 'business' leading to the rising cost of treatment, irrational therapeutics, over-prescription and unnecessary investigations transforming health care into a 'commodity' rather than a 'service'. Such a commercial environment has led to miserable neglect of non-profit public and preventive health care and glorification of profitable curative health care mostly provided by private health institutions. Despite the great medical advances, health care has become increasingly inequitable and inaccessible overwhelming the public health care services. Excessive commercialisation has encouraged procedure-oriented medicine and neglected public and preventive health care. It is a dirty pursuit to earn more than others.[26]

During the COVID-19 pandemic, especially during the 2nd wave, inadequacies of the public health sector was exposed like never before and private health care system was seen enjoying complete impunity, exploited hapless patients leading to some of the most pathetic situations which were widely reported in media necessitating revolutionary reform

in our medical education system. A learned person once said that the destruction of education system is going to destroy a nation and I feel destroying the medical education system is going to destroy the health care system.

CONCLUSION

Medical education in India is confronted with numerous challenges like never before. A paucity of studies exploring the various challenges in medical education in medical journals has necessitated our writing based on media reports, personal observations, experiences and interactions with faculty and more importantly, students which might not appear real to some readers, but may be they have not been exposed to ground realities of medical education. Among numerous challenges in medical education, commercialization of medical education, compromised the role of the regulating institutions like NMC and state medical councils, MCQ based admission criteria, dilution of requirements for opening medical colleges and mindless increase in PG seats and insufficient investment in public medical education are some of the issues that adversely affected the health care system and more importantly the mindset of young doctors. Need of the hour is to address the core challenges and pursuit for inclusive medical education eliminating the coaching culture, initiating healthcare reforms designed to provide 'health for all' with a focus on 'public health' and 'family medicine' not neglecting the super-specialties. I think it is high time that our policy makers realise the seriousness of challenges medical education is facing today, initiate revolutionary reforms before it is too late.

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