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The Case of Indian Students Studying Medicine in China

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17-B, Sri Aurobindo Marg, New Delhi-110016, INDIA
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Abbreviation

AIPMT	All India Pre-Medical Test
FMGE	Foreign Medical Graduates Examination
HSK	Hanyu Shuiping Kaoshi(Chinese Proficiency Test)
MBBS	Bachelor of Medicine and Bachelor of Surgery
MCI	Medical Council of India
MoE	Ministry of Education
MoH	Ministry of Health
MHRD	Ministry of Human Resource Development
NBE	National Board of Examinations
NEET	National Eligibility cum Entrance Test
NMC	National Medical Commission (of India)
NRI	Non-resident Indian
PRC	People's Republic of China
USMLE	United States Medical Licensing Examination

Student Mobility for Higher Education
The Case of Indian Students Studying Medicine in China†

Madhurima Nundy*
Rama V. Baru#

Abstract

The mobility of Indian students travelling abroad for higher education, has been on the rise since the early 2000s. The favoured destinations have been the US, Canada, Europe and Australia. However, in recent years China is the top non-English speaking country where students are going for higher education, mostly for undergraduate medical courses.

The study analyses the pull and push factors of Indian students travelling to China for an undergraduate course in medicine through in-depth interviews with students studying in these universities, faculty and government representatives. It attempts to understand – the students' experiences and expectations; the structure of medical education - curriculum, pedagogy and evaluation methods in China in comparison to India; specific challenges and barriers that they confront in China and on their return. The results show that the larger phenomenon is of commercialisation of medical education in both India and China that is fraught with challenges. There are several actors - governmental and non-governmental - involved in this process, which is largely market-driven and has implications for the future of the students who are presently studying and those who will be pursuing medicine in the future. The study also gives policy recommendations to deal with the burgeoning numbers of Indian students pursuing medical education in China that has implications for medical education policies within higher education as well as for the quality of doctors being produced.

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Background and Rationale of the Study[1]

Over the last decade there has been an increase in the mobility of students, travelling for higher education globally. The globalised world has witnessed rising opportunities due to market forces anda revolution ininformation technology and communication.Added to this is a growing and aspiring middle class in developing countries who have the financial means to travel to other countries for higher education (Nundy 2016). According to the Ministry of External Affairs of India, in 2018, about 752,725 Indian students travelled across to 90 countries for higher education(Deepalakshmi 2018).

Nundy (2016) observes that there are several push and pull factors that determine the mobility of students globally.The push factors are mostly due to lack of diversity inavailable programmes, poor quality of teaching ad resources,insufficient number of seats and so on. The pull factors could be several – wider pool of options to select from, scholarship opportunities, better facilities and resources for research and so on (Snehi 2013, Nundy 2016). The larger factors include gaining better social status, employment prospects and gaining entry into a globalised middle class. Governments across countries have also initiated joint scholarship programmes for international studentsthat have resulted in increase in student mobility. India witnesses more students travelling out of the country than international students coming in. The reasons need to be studied both in terms of rising aspirations and a crisis of higher education at the undergraduate and graduate levels that requires serious inquiry that could potentially contribute to policy dialogue and reforms (Nundy 2016).

In 2014, India had the highest growth rate of students travelling for higher education abroad, though in terms of actual numbers there were twice as many students going from China to study abroad when compared to India. It is estimated that almost

[1] This section is compiled from the background research conducted in 2016 by the first author of the paper titled, 'Indian Students in Higher Education Abroad: The Case of Medical Education in China', which was published as an ICS Analysis, Issue 40 of the Institute of Chinese Studies, Delhi. The analysis had raised questions that formed the basis of this larger research study.

50 per cent of the international students are from China, India and South Korea (M.M. Advisory Services 2015, Nundy 2016).

In 2018, the top seven countries where Indian students travelled to for higher studies were United States (US), Canada, Australia, United Arab Emirates (UAE), China, United Kingdom (UK), Ukraine and France, in descending order of enrolments (Deepalakshmi 2018). The US has witnessed a massive growth of Indian students in the last few years. Canada, Australia, UAE have overtaken UK during the last few years (See Table 1). This is due to the tightening of immigration policies in the UK, weakening of the Indian Rupee to the British Pound that has made UK expensive for higher education. In addition, the Brexit impasse has also affected the mobility of students to the UK. Interestingly, for many Indian students, China is one of the preferred countries and this is reflected in their steady growth. India ranked among the top 10 nations with students at Chinese varsities. This number has now increased to about 23,000 in 2019.

Table 1

Indian Students Enrolled in Higher Education in Top 7 Countries, 2018

Rank	Countries Students Travelling to	Number of Students
1.	United States	211,703
2.	Canada	127,000
3.	Australia	87,115
4.	United Arab Emirates	50,000
5.	Bahrain	27,200
6.	China	18,171
7.	United kingdom	16,550
8.	Ukraine	11,000
9.	Kyrgyzstan	8,500
10.	France	2000

Source: Deepalakshmi 2018

Higher Education in China: Inbound Students

China has made a fruitful commitment to scale the global value chain by making internationalization of higher education an important aspect of their education and foreign policy. They have been steadily investing in higher education in order to attract foreign students to China (See Table 2) and this number is said to go up to 500,000 in 2020. Presently, almost 70 per cent of the international students are from Asia (UNESCO 2013; Nundy 2016). The Communist Party of China has made China an attractive destination for higher education by introducing several scholarships for foreign students. They have also partnered with foreign universities (mostly North American) to establish joint venture campuses, where students get to study in both campuses during the length of the programme. The other aspect which is important is that the cost of living and tuition fees in China is relatively lower than other developed countries (Onsman 2013; UNESCO 2013; Nundy 2016).

Table 2

International Students in China, 2014

Rank	Place of Origin	Number of Students	Percentage of Total
1	South Korea	62,923	16.7
2	United States	24,203	6.4
3	Thailand	21,296	5.6
4	Russia	17,202	4.6
5	Japan	15,057	4.0
6	Indonesia	13,689	3.6
7	India	13,578	3.6
8	Pakistan	13,360	3.5
9	Kazakhstan	11,764	3.1
10	France	10,729	2.8

Source: Institute for International Education. n. d. b (cited in Nundy 2016).

A break up of international students by field of study in China shows that Humanities has the largest share followed by Business and Management and Medicine occupies a third position (See Table 3).

Table 3

Total Number of International Students by Field of Study in China, 2014

Rank	Field of Study	Number of Students	Percentage of Total
1	Humanities	208,472	55.3
2	Business and Management	54,750	14.5
3	Health Professions	52,090	13.8
4	Engineering	34,134	9.1
5	Social Sciences	9,118	2.4
6	Education	6,664	1.8
7	Fine and Applied Arts	5,531	1.5
8	Physical and Life Sciences	3,927	1.0
9	Agriculture	2,368	0.6

Source: Institute for International Education. n. d. b (cited in Nundy 2016).

The total number of Indian students in China was reported as 18,171 in 2018,which has gone up from 765 a decade ago. About 90 per cent of the studentsgo to pursue undergraduate medical courses. In contrast, Chinese students in India were as low as 2000 in 2015 (Press Trust of India 2015; Nundy 2016).

State of Medical Education in India

According to the latest data by the Medical Council of India (MCI), there are total of 79,627 seats spread across 536 medical colleges teaching Bachelor of Medicine and Bachelor of Surgery (MBBS) (MCI 2019a). The real growth in medical colleges has been due to an expansion of the private sector with a regional bias towards the southern and western parts of India (Diwate 2016). Medicine is seen as a status enhancing profession and therefore there is a demand for it, which exceeds supply. Given the fact that the entrance exams for medicine is highly competitive and the number of seats in public medical colleges are few, the expanding private sector offers seats at a high price. Those who are unable to pay for medical education in India look for other alternatives. These alternatives are weighed in terms of cost, and medical education in China works out cheaper than the private medical colleges in India (Nundy 2016).

Among the most preferred destination to study medicine abroad, China tops the list followed by Russia, Ukraine, Nepal, Kazakhstan, Kyrgyzstan, and others. More recently, Philippines is also attracting students from India (Banerjee 2015; Nundy 2016).

China opened its doors for foreign students seeking admission in medicine courses in 2004. The MCI recognises 45 medical universities, which are public institutions, providing 3,370 seats to international students (MCI 2019). Earlier there were 214 bilingual universities also listed in the MCI website, where students could apply. Since 2017, the 214 universities stand de-recognised by the Indian government and eligibility certificatesare given onlytostudents who have sought admission to the 45 universities, so as to appear for the Foreign Medical Graduates Examination (FMGE). The Indian Embassy in Beijing provides guidelines to students wishing to study medicine in China and warns students against 'spurious agents' who might mislead them to apply in an university that is not recognised or does not meet the standards (Embassy of India, Beijing 2016; Nundy 2016). There are 'agents' in India who recruit and facilitate the admissions in universities in China.

Most of the foreign graduate students (barring those from US, UK, Australia, New Zealand, and Canada) have to sit for the FMGE organised by the National Board of Examinations (NBE) on their return, which is a prerequisite to get medical license to start practice in India. Analysis of data from 2015-18 shows that out of 61,708 students who appeared for the FMGE, only 8,764 passed, that is 14.2 per cent (Ghosh, 2019). Maximum number of students who appeared were from China and pass percentage was 11.67 per cent (Table 4).

Table 4

Pass Percentage of Students Who Appeared for FMGE (2015-18)

Country	Total Number of Students Who Appeared for FMGE	Number Who Passed FMGE	Percentage Passed
China	20,314	2,370	11.67
Russia	11,724	1,512	12.89
Bangladesh	1,265	343	27.11
Nepal	5,894	1,042	17.68
Ukraine	8,130	1,224	15.00
Kazakhstan	1,393	143	10.2
Kygyzstan	5,335	589	11.00
Total	**61,708**	**8,764**	**14.20**

Source: Ghosh, 2019.

Since the pass percentage is so low, many students who have completed their medical education abroad have to invest money and time in coaching centres in India, in order to prepare for the FMGE. Despite these constraints, there has been no decrease in the number of students going to China.

Nundy observes, "The poor pass percentage might seem indicative of poor quality of medical education but this raises a lot of questions regarding the different standards of evaluating students which is depriving many young doctors to enter the profession. The Standing Committee Report of the Parliament on the functioning of the MCI raises this issue and also the Minimum Standard Requirement (MSR) required by medical colleges in India. It observes that the rigid standards cannot be applied to foreign medical colleges that will probably be very different and these standards have also been an impediment to establishing more medical colleges in India. There is undue focus on infrastructure and none on the quality of education. It further recommends that along with a Common Medical Entrance Test there should be a Common Exit Test in order to ascertain the quality of students and indirectly the quality of medical education being imparted by medical colleges in India" (Nundy 2016).

The issue seems far more complex and there is very little information on the experiences of the Indian students going to China. Whatever little information is available is based on newspaper articles which is anecdotal. This phenomenon requires further investigation and analysis.

Research Questions and Objectives

Given this background, it is imperative to understand the push and pull factors that lead Indian students to go to China for studying medicine. There are pertinent questions to be raised on their motivations, experiences, quality of education, curriculum and pedagogy and, their perceptions about the future.

The research questions are:

- What are the push and pull factors that determine the flow of students to China?
- Where do the students mostly come from?
- What are the formal and informal networks that support the mobility of students?
- What are the contents and methods of transaction of the curriculum for undergraduate medical education in China and India?
- What is their experience in China, not only in terms of skills and quality of education but also of the general ethos and life in a country that was never part of their imagination?
- What are the challenges and barriers they confront during their time in China and on their return?
- How do the various government stakeholders on both sides view this phenomenon, what are their perceptions and what are the challenges to be addressed?

The objectives of the study are to –

- Provide a comprehensive analysis of the internal and external factors that determine the flow of students.
- Examine the motivations, experiences and expectations of students in China as well as the challenges faced by students once they return to India.
- Examine the curriculum and its transaction for undergraduate medical education in China and India
- Provide policy recommendations.

Methodology

The study extensively relies on primary data and is supported by macro data available from secondary sources. The study is primarily based on in-depth interviews with various stakeholders – Indian students, Indian Embassy in China, Ministry of Education (MoE) in China, and Faculty from the Chinese Medical Universities.

The researchers first got in touch with the Indian Embassy in Beijing, China to get an overview of the students in China. The Indian Embassy facilitated the meetings with medical universities, students and the MoE of People's Republic of China (PRC). They put the researchers in touch with students from three medical universities (out of the 45 universities that are recognised by MoE, PRC) – Capital Medical University, Beijing; China Medical University, Shenyang, Liaoning; Wuhan Medical University, Wuhan, Hubei and faculty from all these medical colleges. The researchers also interviewed faculty of medicine in Fudan University, Shanghai through other networks. All these universities have a large number of Indian students and therefore, were purposively selected. They also represent two universities under central government and one under the provincial government. Capital Medical University, Beijing is under the central government and has 600 students from India, studying across all six years. China Medical University, Liaoning is a provincial university that has 600 Indian students across all the years of the undergraduate course. Wuhan University in Hubei province, which is under the central university has over 400 students.

The three universities were representative of the 21,000 Indian students who study medical education in China. The sample did not take into account the 214 bilingual universities that were earlier recognised by the MCI and have very recently been withdrawn from the list of recognised medical colleges.

The researchers had focused group discussions and in-depth interviews with students across these universities. Discussions were held with the faculty of the medical universities. There was in-depth interview with officials of the Indian Embassy dealing with the issue of higher education in China. Senior officials of the MoE, PRC were also interviewed.

The meeting in China was facilitated by the Indian Embassy, which helped the researchers gain access to the select medical colleges and students. One of the constraints of going through the Embassy was that the faculty and the MoE officials were cautious and not completely forthcoming. However, the researchers were able to ease this situation by stating their independent status, and also stating that the research would help in evolving more suitable policy and course corrections where required. They later met the students outside their campuses to get a more comprehensive picture of their experiences and the phenomenon.

Discussion and Analysis

I. Structure of Medical Education in India and China

i. Role of Public and Private Sectors

In India there are 536 medical colleges providing undergraduate degree in medicine with 79,627 seats (MCI 2019). Out of the total number of medical colleges, 49.1 per cent are government institutions; 46.5 per cent of the total are owned by trusts and societies and rest are private for-profit or in partnership with the government (See Table 5).

Table 5

Number of Medical Colleges for MBBS by Ownership in India

S. No.	Ownership	Number of Medical Colleges
1.	Government	263
2.	Trust/Society	249
3.	Private for-profit	14
4.	Government-Society Partnership	10
	Total	**536**

Source: Compiled from MCI 2019a.

Table 6 shows that there is a concentration of these colleges in some states – Karnataka, Maharashtra, Uttar Pradesh, Tamil Nadu, Kerala, Telangana, Andhra Pradesh and Gujarat. Karnataka has the highest number of private (trust/society) colleges. About 69 colleges were not granted recognition by the MCI in 2017 and hence debarred from admissions.

Table 6

Number of Medical Colleges for MBBS by State in India

State / UT	Government	Trust/Society	Private	Government-Society Partnership	Total
Andaman & Nicobar	1	-	-	-	1
Andhra Pradesh	13	17	1	-	31
Arunachal Pradesh	1	-	-	-	1
Assam	5	-	-	1	6
Bihar	10	5	-	-	15
Chandigarh	1	-	-	-	1
Chhattisgarh	7	2	1	-	10
Dadra & Nagar Haveli	1				1
Delhi	7	2			9
Goa	1				1
Gujarat	9	10	2	8	29
Haryana	5	6	1		12
Himachal Pradesh	6	1			7
Jammu & Kashmir	7	1			8
Jharkhand	3				3
Karnataka	19	40			59
Kerala	10	24			34
Madhya Pradesh	14	9			23
Maharashtra	25	27	1		53
Manipur	2				2
Meghalaya	1				1
Mizoram	1				1
Orissa	8	4			12
Pondicherry	2	7			9
Punjab	3	5			8
Rajasthan	15	6	2		23
Sikkim			1		1
Tamil Nadu	26	22	1		49
Telangana	10	21	1		32
Tripura	1	1			2
Uttarakhand	4	2			6
Uttar Pradesh	23	28	2	1	55
West Bengal	18	6			24
Total	**260**	**246**	**13**	**10**	**529**

Source: Compiled from MCI 2019a.

There are serious concernsabout medical education in India – these are exacerbated by the unregulated growth of the private sector, dearth of faculty and resources, lack of uniform admission procedures and dated curricula, poor quality of teaching, corruption in recruitment as has been exposed by the Vyapamscandal (Nundy 2016).

Over 45 per cent of the recognised colleges in India are private non-profits and registered as trusts or societies, given that education is a non-profitable activity. The rest are public sector universities, with very few for-profits and those that are in partnership with a Trust or Society. Despite the non-profit status of most private colleges, there is demand for high capitation fees that could vary from 5 million to 15 million Rupees. This is besides the annual college fees and other costs incurred by a student. These are shown as donations by the respective medical colleges. The Supreme Court declaration of this practice as illegal, has done little to prevent it.

The present crisis of medical education in India has been attributed to the failure of the MCI by the Standing Committee Report that was released in 2016. The report recommended extensive and radical reforms of the MCI. The Committee acknowledged that the MCI was driven by powerful interests that failed in the duty to keep a transparent and accountable system in the accreditation of medical colleges (Rajya Sabha Secretariat 2016; Nundy 2016).

The MCI was superseded vide Indian Medical Council (Amendment) Ordinance, 2018 (Ordinance 8 of 2018) by the Board of Governors. The Board of Governors had taken over functions of the Medical Council of India in September 2018. In August 2019, both houses of parliament passed the National Medical Council Bill, which will now determine the quality and standards of medical education.

The recent draft National Education Policy, 2019 suggests further commercialisation of medical education in India. The official stance till date was that education is not a for-profit venture and hence all private medical colleges on paper were registered as non-profits, either as trusts or societies. The UPA government in

2010, allowed private medical colleges to open under the Companies Act (Nagarajan, 2019a). In 2016, the present government did away with the 'non-profit' stipulation and for-profit medical colleges were allowed to set up under Companies Act. This decision has also created dissatisfactions among the existing non-profit medical colleges, who would like to set their own fees and have the for-profit status. Further, earlier this year, "the MCI Board of Governors amended the Establishment of Medical College Regulations Act, 1999 to allow a consortium to set up medical colleges. A consortium, could be a group of two or four eligible organisations including a society, trust, company, university or deemed university who have entered into a Memorandum of Understanding" (ibid. 2019). There are few medical colleges that are already in partnership in a PPP mode in Gujarat and few other states. But one is yet to find out whether this move will improve the quality of medical education or is the State only looking at increasing quantity of doctors?

As a contrast to India, in China, all medical colleges are public. A few colleges are under the jurisdiction of the MoE at the Centre. The others are under the respective provincial government. All medical colleges have the status of a deemed university and are autonomous entities. Hence, even though all the medical universities in China are public (centre or provincial institutions), they are autonomous and are allowed to generate their own resources. This has led to commercialisation of medical education. There are over 250 medical universities across provinces recognised by the MoE in the PRC and there is much variation in the infrastructure, human resources and quality of education across provinces in China as is in India. Unlike Indian colleges, many of these medical colleges take international students, a phenomenon that started in Xi'an Jiatong University, Shaanxi in 1995 and then Tianjin University in 1997 (Interview with *MoE officials, Beijing, May 2019*). In India there are very few seats available to international students in medical colleges and most of these are in private medical colleges.

ii. *Entry into Medical Colleges in India and China*

In India, there is a common entrance test called the National Eligibility cum Entrance Test (NEET), which was earlier the All India Pre-Medical Test (AIPMT) for students who are keen on pursuing MBBS or dental in government or private medical colleges after finishing high school. The undergraduate courses at All India Institute of Medical Sciences (AIIMS) in New Delhi and Jawaharlal Institute of Postgraduate Medical Education & Research (JIPMER) were set up under separate Acts and hence, do not fall within the scope of NEET.

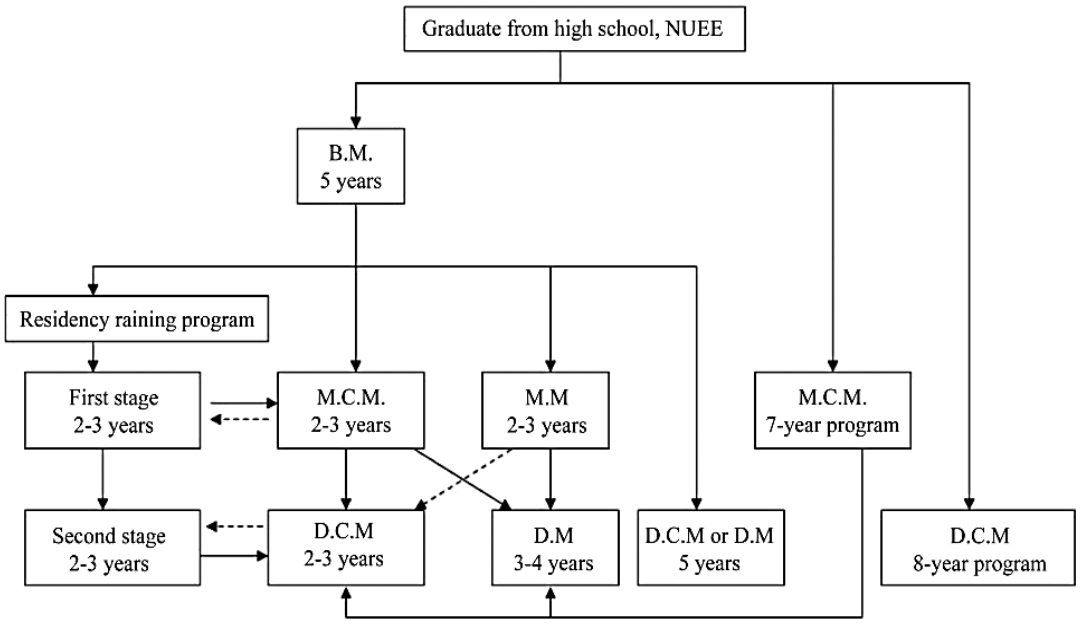
While the NEET exam in India was introduced to regulate quality of medical education, it has not served that purpose as analysis shows. It is money and not merit that has compromised the quality of students entering the medical colleges in India (Nagarajan 2019b). In government colleges, seats are distributed among general category students and those for reserved categories. These seats are known as 'government-controlled seats'. Private medical college seats include 'government-controlled seats' and those under private control such as management and non-resident Indian (NRI) quota that are available at a high price. It is observed that the average NEET score for students in the two colleges (public and private) vary drastically with a much higher average of 448 out of 720 in the public colleges and 306 in the private (*The Wire Analysis* 2018).

Nagarajan (2019c) in a recent report states that since there is no cut-off for individual subjects in NEET, *"at least 400 students with single-digit marks in physics and chemistry and 110 students with zero or negative marks in them have been admitted for MBBS in 2017, mostly in private colleges….If getting zero in these subjects doesn't make a person ineligible for admission, why bother to test in that subject at all?"* The percentile system of NEET, dropped the stipulation on marks in individual subjects. The report analysed subject marks of 1,990 students who got admitted to MBBS with NEET scores of less than 150 out of 720 and found 530 students with single digit, zero or negative marks in physics or chemistry or even both (Nagarajan 2019c).

The Chinese system has a centralised exam, National College Entrance Examination, known as the *Gao Kao* for getting in to higher education and professional colleges, after completing high school. It is a highly competitive exam, since there is only one uniform exam that is an entrance to higher education and professional courses, including medicine. According to merit scores, the students are given choice of medical colleges. In terms of status, unlike India, the status of medicine is not high among professional courses in China. Engineering and other sciences top the list of preferences. The Chinese medical education system has undergone reforms over the last decade. The medical education is organised around a three-level degree system – bachelor, masters and doctorate. It has several streams of learning and students are selected on the basis of that – 3 years course (diploma), 5 years (bachelors), 7 years (masters) and 8 years (doctorate) (Figure 1).

Figure 1

Multipath to Acquire Multilevel Medical Degrees in China



Source: Wu et al 2014.

For international students in China, entry is quite different. It is a completely different stream from the regular Chinese stream. Students can gain entry by buying their seats in the college. This is discussed at length later in the report.

iii. Curriculum for Indian Students in India and Indian Students in China

In India, MBBS course extends over a period of 4 ½ years with one-year compulsory internship. Total duration of MBBS course in India is 5 ½ years. In the first one-and-a-half year students are taught pre-clinical subjects and the rest of the three years, students get in-depth knowledge in clinical subjects. In the Indian medical education system, the syllabus is based on pure medical subjects. The 4 ½ years are divided in to three phases. First phase is with two semesters fully based on pre-clinical subjects like human anatomy, physiology and biochemistry. In second phase, three semesters are included with para-clinical and clinical subjects like pharmacology, pathology, microbiology and forensic medicine. In phase three, the 7th semester will have clinical subjects like paediatrics, ENT, community medicine, ophthalmology and other allied specialties of medicine and surgery. Passing in each phase is compulsory before proceeding to the next phase. Health ministry from 2017-18 has proposed an exit exam at MBBS level onwards and also in the draft education policy 2019, with an aim to further improve the quality standards in Indian medical system.

A new competency based curriculum was introduced by the MCI in 2018 which was the first substantial revision since 1997. The curriculum competencies are organised in three volumes with detailed explanations on the competencies that are required (MCI 2019). For 412 topics below, there are 2949 competencies listed (Table 7).

Table 7

Topics and Outcomes of Undergraduate Curriculum Measuring Competencies in India

S. No.	Subjects	Number of topics	Outcomes
Vol. 1	**Pre-clinical & Para-clinical**		
1	Human Anatomy	82	409
2	Physiology	11	137
3	Biochemistry	11	89
4	Pharmacology	05	85
5	Pathology	36	182
6	Microbiology	08	54
7	Forensic Medicine and Toxicology	14	162
Vol. 2	**Medicine & Allied Subjects**		
1.	Community Medicine	20	107
2.	General Medicine	26	506
3.	Respiratory Medicine	02	47
4.	Paediatrics	35	406
5.	Psychiatry	19	117
6.	Dermatology, Venereology & Leprosy	18	73
7.	Physical Medicine & Rehabilitation	09	43
Vol. 3	**Surgery & Allied Subjects**		
1	General Surgery	30	133
2	Ophthalmology	09	60
3	Otorhinolaryngology	04	76
4	Obstetrics & Gynaecology	38	126
5	Orthopaedics	14	39
6	Anaesthesiology	10	46
7	Radiodiagnosis	01	13
8	Radiotherapy	05	16
9	Dentistry	05	23
		412	2949

Source: MCI, 2019b

Critiques of this curriculum say it is inadequate and instrumental, with emphasis on capsules of information than epistemological approaches that inform the interplay of medicine and humanities (Prabhu 2019).

The medical education programme for international students in China consists of a five-year programme with one-year internship.The curriculum includes compulsory course and elective course according to the requirements of the University. Students' internship is in the same university's affiliated hospital or the student can do his internship in his own country. In China the entire course is divided in to ten semesters and the total ten semesters divided into two parts – basic and clinical. First semester is devoted to study the subjects that they study in high school - Cell Biology, Physics and Chemistry and Chinese language. The goal is to have all students from different parts of world reach a uniform level of understanding of subjects at the level of high school (12^{th} grade according to Indian standards). Basic medical subjects are taught within the first four semesters. Clinical subjects are taught in the next six semesters. During the second semester the subjects include Anatomy, Physiology, Chinese language and Bio-Chemistry. Third semester revolves around subjects like Pharmacology and pathology. In the fourth semester the subjects include Pharmacology, Pathology, Community Medicine and Microbiology (*Interview with students, faculty in Beijing, Shenyang, Wuhan and Shanghai, May-June 2019; August 2019).*

iv. Regulatory Mechanisms and Quality Control

Medical education in India falls under the purview of higher education which is overseen by the Ministry of Human Resource Development (MHRD) also known as Ministry of Education) but many times there is a tension between MoE and Ministry of Health (MoH). The MCI was affiliated to the MoH andwas the nodal body for establishing content, quality and standards of medical education in India. Following corruption charges on the MCI, the Supreme Court allowed the Central Government to replace the medical council and with the help of five specialized doctors monitor the medical education system in India, from July 2017. The Niti Ayog recommended the replacement of the MCI with National Medical Commission (NMC). The Bill was

presented in the Parliament on 22 July 2019 and was passed by both houses of parliament. Till the Bill gets implemented, the MCI has a board of governors, monitoring and regulating quality of medical education in India.

In the PRC, medical education comes under the purview of the MoE. They regulate and monitor the quality of education. They have a panel, representing faculty from different universities who carry out inspection of medical universities every year. The only medical college under the Ministry of Health is the Peking Union Medical College (PUMC), which is one of the oldest medical college of China providing training in allopathic medicine founded by the Rockefeller Foundation. This is considered an elite institution and does not allow entry of international students to the MBBS programme.

II. Indian Students Studying Medicine in China: Perceptions and Experiences

There is a separate stream of medical education for international students in China, which is very different from that of the Chinese students who study medicine. The other international students are from Pakistan, Bangladesh, Nepal and Sri Lanka.

The Southeast Asian countries had lobbied with China to open up medical education to students from their country in the 1990s. Thailand was one of the first ones, since there were not enough medical colleges in Thailand to train students who desired to be doctors. In order to address the demand and unmet need, Thailand had approached the Chinese government to provide medical training to their students. The first medical college to open up for international students was Xi'an Jiatong University in 1995 and the second was Tianjin University in 1997. It is only in the first decade of the 2000s that Indian students started going to China to study medicine. In 2003 China opened up all its sectors and also education to other countries. At that time Prime Minister Vajpayee visited China and signed several agreements pertaining to education. In the first batch in 2004, 150 Indian students went to study medicine in China. These students went through agents who were selected by the Chinese Embassy and consulates in India. The main agents were individuals spread across Kolkata, Nagpur, Hyderabad, Kerala and Delhi. According to an official in the Indian Embassy in China,

"*Now these main agents have many sub-agents all over India. From 2004-2006, these agents were bringing around 200 Indian students to China every year. During this time, they studied the Chinese market carefully and saw that there was a huge market in medical education and the demand of students back in India to become doctors especially in rural India was quite high"* (Official in Indian Embassy, Beijing, May 2019).

An official at the Chinese Embassy in India created a list of 45 universities in the early years. However, this exercise resulted in disgruntlement among the Chinese medical universities who were excluded. This meant revenue loss for the Chinese universities hence this list was scrapped and was replaced with a list of 214 universities. Any student from India could come and study medicine (Interview with Official from Indian Embassy in China, Beijing, May 2019).

Over the years, as more and more Indian students started joining the medical universities and graduating, there was concern from both sides – the Indian government as well as the MoE, PRC – regarding the quality of students as well as medical education. The Chinese were also concerned about their image abroad. Since 2016, the MoE, PRC has recognized 45 universities in China that provide medical education in English, that is to say, English is the medium of instruction for the international students. These universities were ranked on the basis of the medical education provided to the Chinese students. The MCI used to list 214 bilingual medical universities approved by MoE, PRC. In 2018, an expert panel of the MoE, PRC visited 52 colleges and evaluated them. The report was submitted to the MoE based on which 45 medical colleges were recognized for admitting international students. There is a Chinese review board that inspects medical universities and suggests the suitability of these for international students. They undertake site visits and review curriculum, evaluation and quality of education. The review board consists of a panel of experts of doctors and representatives of international education (Interview with officials of the MoE, PRC, Beijing, May 2019).

From this year, the MCI has removed 214 universities from its list of recognised universities and now includes only 45 universities. Most of these universities are spread across provinces from north-east to south-east of China (Table 8).

Each recognised medical university can only take a fixed number of international students every year. The Capital Medical University in Beijing, for example can take 100 international students every year and they said that they get students from about 50 countries, the maximum being from India. More recently the trend is changing as there are more students from Bangladesh, Thailand, Sri Lanka, Indonesia and southern African countries. The Chinese are also consciously trying to evenly distribute the number of international students coming from other countries. In the last two years the flow of Indian students in some of these universities have come down. According to the faculty, the standard of other international students is similar to that of the Indian students studying in these universities.

Table 8

List of Institutions for International Students Studying Medicine in China, Recognized by the Ministry of Education, PRC, 2019-20

S. No.	Name of the Medical University, Province	Number of intake of international students permitted by the MoE for academic year 2019-20	Total number of Indian students presently studying MBBS (cumulative for all years) (till 2018-19 batch)
1.	Jilin University, Jilin	62 (earlier intake was 100)	374
2.	China Medical University, Shenyang, Liaoning	100	600
3.	Dalian Medical University, Liaoning	100	108
4.	Capital Medical University, Beijing	100	600
5.	Tianjin Medical University, Tianjin	100	350
6.	Shandong University, Shandong	78 (earlier intake was 100)	50
7.	Fudan University, Shanghai	100	12
8.	Xinjiang Medical University, Xinjiang	100	437
9.	Nanjing Medical University, Nanjing	100	270
10.	Jiangsu University, Jiangsu	100	249
11.a	Wenzhou Medical University, Zhejiang	100	230
11.b	Wenzhou Medical University (Overseas), Zhejiang	50	-
12.	Zhejiang University, Zhejiang	100	103
13.	Wuhan University, Hubei	100	429

14.	Huazhong University of Science and Technology, Hubei	100	Nil
15.	Xi'an Jiatong University, Shaanxi	100	191
16.	Southern Medical University, Guangdong	100	357
17.	Jinan University, Guangdong	-	-
18.	Guangxi Medical University, Guangxi	100	528
19.	Sichuan University, Sichuan	100	494
20.	Chongqing Medical University, Chongqing	100	501
21.	Harbin Medical University, Heilongjiang	60	284
22.	University of North China (Beihua University, Jilin	40	482
23.	Jinzhou Medical University, Liaoning	60	426
24.	Qingdao University, Shandong	60	346
25.	Hebei Medical University, Hebei	60	380
26.	Ningxia Medical University, Ningxia	60	193
27.	Tongji University, Hubei	60	90
28.	Shihezi University, Xinjiang	60	200
29.	Southeast University, Nanjing, Jiangsu	60	276
30.	Yangzhou University, Jiangsu	60	400
31.	Nantong University, Jiangsu	60	399
32.	Suzhou University, Jiangsu	60	458
33.	Ningbo University, Zhejiang	60	600
34.	Fujian Medical University, Fujian	60	118
35.	Anhui Medical University, Anhui	60	220
36.	Xuzhou Medical University, Jiangsu	60	260
37.	Three Gorges University, Hubei	20	250
38.	Zhengzhou University, Henan	60	350
39.	Guangzhou Medical University, Guangdong	60	60
40.	Zhongshan University (Sun Yat-Sen University), Guangdong	60	60
41.	Shantou University, Guangdong	20 (earlier intake was60)	60
42.	Kunming Medical University, Yunnan	60	300
43.	Chuangbei Medical University (North Sichuan Medical College), Sichuan	40	200
44.	Southwest Medical University, Sichuan	60	150
45.	Xiamen University, Fujian	60	120
	Total	**3370**	**12445**

Source: Indian Embassy in Beijing, 2019; and MCI 2019c

According to the MoE, PRC statement earlier this year, "Schools not listed (in the list of 45 universities) shall not recruit undergraduate students majoring in clinical medicine (teaching in English) to come to China, but only undergraduate students majoring in clinical medicine taught in Chinese" (cited in Patranobis 2019). While the Indian embassy states that there are 21,000 Indian students studying medicine across China, those studying in the 45 recognised medical universities are only 12,445. Over 8000 students are located in universities that do not offer the course in the English medium. They have to learn Chinese to get a degree in clinical medicine as the medium of instruction is in Chinese. The universities that have Chinese as the medium of instruction have a lower fee structure. As a result, students from the lower middle classes find it a viable option. It is only this year that the Indian government has derecognised the other universities.

The eligibility criteria for Indian students applying to Chinese medical colleges have been made a bit more stringent. Earlier any Indian student could apply to a medical university in China based on their high school marks. But many colleges took students irrespective of their score in high school. Hence, there was no quality check of the students going to China. The Indian Medical Council Act has made some reforms. From 2017, the students seeking to go to foreign universities for studying undergraduate course in medicine had to qualify the NEET in order to even apply. The number of Indian students in China has therefore come down now in the last two years.

The students feel that the criteria of qualifying NEET for Indian students who go to foreign universities is a good move – *"earlier a student with a 90 score and 30 score, could both apply to the Chinese universities. So when the NEET was introduced and students had to at least score a 50 to even apply, the quality and quantity of students became better"* (Student, Beijing, May 2019).

i. Rationale for Indian Students Studying Medicine in China

There are a number of reasons for Indian students opting to study medicine in China. These included both individual and familial aspirations to become doctors; unable to get a good score on the centralised qualifying NEET exam; the high cost of

private medical colleges in India; reasonable fee structure and living costs in China compared to Western countries and the safety of living in Chinese cities was an added attraction for single women.

In 2019, there were 1,410,755 students who appeared for the NEET for getting entry into a medical college. The number of medical seats available was only about 80,000 in India and those who qualified the NEET were around 700,000 or more (*Indian Express 2019*). A small percentage might be able to afford the private colleges while a large proportion will not. Those who are unable to gain admission in a government medical college and unable to pay tuition fees in private colleges go to study in universities abroad mostly to Russia, Ukraine and Central Asian countries. A large proportion of them find their way to China.

Through individual interviews and group discussions the students articulated their aspirations to become a doctor, the constraints of qualifying in the entrance exam, the formal and informal networks that helped them in their mobility for medical education to China.

For most students, inability to clear the entrance exam back home and relativelylower costs were the major reasons to choose China.Many perceive China as an emerging economic power and feet it is a better country, than Central Asian countries and Russia. Some of the women students said that they had heard China was safe for women and hence that was one major reason they opted for China. Some also said that the medical universities in China ranked better than others in Asia.

The students finish the course in China within half of what they would spend in a private medical college in India.

The fee structure for one of the colleges in Beijing is given below.

Table 9

The fee Structure for International Students Studying Medicine in Beijing

Fee for Pre-medicals: 25,000 RMB (tuition and accommodation)
Fee for Clinical medicine: 50,000 RMB (per year for 6 years) – the medical college in Beijing gives a waiver of 10,000 RMB, therefore, payable amount is 40,000 RMB.
Other charges:
Dormitory (double occupancy for Clinical Medicine) for 6 years – **11,000 RMB/year**
Application, Admission (one-time payment at reporting time) – **14,800 RMB**
Registration (one-time) – **800 RMB**
Medical Check up (one-time) – **600 RMB**
Resident permit per year – **400-500 RMB / year**
Insurance per year – **600 RMB / year**
Source: Compiled from a Medical University, Beijing, 2019

Source: Compiled from Medical College in Beijing, 2019.

There is variance in costs across provinces. Based on an approximate calculation, a student in Beijing would spend around Rs. 5-6 million for a six-year MBBS training inclusive of all costs. This would be the highest in terms of cost compared to other colleges since Beijing is the capital city and the cost of living is high. This would hold true for Shanghai as well.

Compared to this, costs for getting a seat in a private medical college in India is very high and ranges anywhere from Rs.400,000 per year to Rs.4 million per year only on fees. There are then costsrelated to stay and other living expenses as well as some other hidden costs. Many colleges also take capitation fees where seats can be purchased at a cost by giving donation, which is illegal but is still rampant.

For some students, fundsare not a big issue as parents are able to afford, but for many coming from lower middle-class families, the decision is not an easy one. Being a doctor is a status enhancing profession and puts a lot of pressure on students, where families push their children to study medicine. Many students voiced this.

ii. Networks for Indian Students for Gaining Entry into China

Indian students studying medicine in China is a complex phenomenon involving several actors – formal and informal. At the core are the students with aspirations who wish to study medicine but are unable to make it to medical colleges in India. The information they gather about medical colleges is from either friends who have already studied there, some distant relative and/or the agent they are recommended to.

a. *Informal Networks*

Informal networks include family, friends and former students who have studied in China. Personal networks of family and friends include those who had some connections with China that helped them decide.

There seems to be a clustering of students in some medical colleges from particular states. For example, there is a large representation of students from Northern Kerala in Wuhan Medical University, Hubei province and from Kerala, Telangana and Tamil Nadu in China Medical University, Shenyang, Liaoning province. Capital Medical University in Beijing had more students from Maharashtra and Gujarat. In many instances, a senior who is a relative or a family friend and studying or finished studying medicine in the university informed the students about the university.

In the case of Wuhan and Shenyang, these informal networks are mostly senior students from their hometown who are the first point of contact, motivators, and assist in providing the initial set of information and later assist in settling down when they reach China. They say they are a community and help each other across generations of students. When a fresh batch comes they take care of them. The students are taken care of, in the first few weeks and then they are on their own. This scenario was different from that of students in Beijing where every student was more or less on their own, and there was less of a community feeling there.

There is a thin line between formal and informal networks, as the agent could also be a family friend or a relative.

b. Formal Networks for Medical admission

The key player in the formal network is the agent. The role of the agent in this phenomenon of student mobility is very important. He plays a critical role in mobilising students to study medicine in China. Each agent has links with one particular college in China with connections and contacts. There are sub-agents within the university who liaison between the university in China and agents in India. The agent in Beijing is from Pakistan while the one in Wuhan is from Nepal. They could be former students or senior students doing their PhD. Some Indian students act as informers or become sub-agents for the agents in India and assist them with details of admission in China.

The agents are scattered all over India. The main agents are located in Delhi, Mumbai, Gujarat, Kerala, Tamil Nadu, Andhra Pradesh. Their franchisees operate across these states. According to the students the agents commission varies according to the ranking of the university and could range from 200,000-500,000 per student.

Most students who seek admission into medical colleges in China are dependent on agents for details of the institution, fee structure, living conditions and the course itself. Every medical college has a direct link with these agents and they often accompany students at the time of admission and completion. The airfare for the agent is borne by the student. There were instances when students felt 'duped' by the agent who did not give them full information regarding the costs to be incurred. They found about 'hidden costs' once they arrived in China.

One agent started his business with apples in Shenyang and then ventured into business with the university and mobilised Indian students to China. The students are most vulnerable with the agents. The students felt that the agent played on their vulnerabilities, aspirations and inability to get the requisite marks to study in India. The agents are powerful. One could apply directly to universities, but students are mostly unaware of how to choose universities and the procedures to apply on line. They are dependent on the agents for all details.

Most of the students in Capital Medical University that the researchers met had applied through agents in Mumbai or Nagpur. They were given the contact through a friend or relative who had studied in China before. The agent takes all the documents and forwards it to the university. The university sees all the paper work and gives the admission date. Agents are more like brokers and have tie-ups with specific universities. They have links with the top administrative officials managing the division for international students. For instance, in the medical university in Wuhan there were over 400 students from Kerala who had come through the same agent. The agent from Kerala directly negotiates with the agent in Wuhan University who is from Nepal.

The lack of information on university websites, compounded by deliberate withholding of information by agents creates difficulties for students who come from lower income background and have taken loans to study. But, students agreed that agents made the work easier while applying to a university, as there were several questions that students had that might not be easily available and accessible due to language concerns and lack of time. But all students agreed that there needed to be some transparency in the system. Hence, the embassy portal needed to have a much more detailed information on recognised or 'licensed' agents.

Interestingly, many students become sub-agents. Many young students like spending money and travelling and do not get sufficient funds from homes to pursue these activities. Many families take loans for the education. Students sometimes take up the work of being a sub-agent to the main agent in India. Some even go on to become main agents. The role of the agent in the recruitment of students to study in China requires separate attention.

iii. Perceptions and experiences of Indian medical students in China

Based on individual in-depth interviews and group discussions, the researchers attempted to gauge the perceptions and experiences of students studying medicine in China. Most students were from Gujarat, Maharashtra, Telangana, Andhra Pradesh, Kerala and Tamil Nadu. They seemed to come from middle and low-income families and many have mobilized loans to study in China.

a. Curriculum, Pedagogy and Evaluation

The curriculum and pedagogy in China is very different for the international students from the Chinese stream. Before leaving for China, most students had no clue that there was a separate curriculum for the international students from the Chinese students studying medicine in China. The curriculum of the two streams is at variance with each other and is transacted very differently. There is no standardised system of medical education provided across colleges. There are provincial variations. The practical exposure and training also varies across streams and colleges.

While the curriculum, pedagogy and evaluation systems differ from one university to the other they are broadly similar. Medical curriculum for the international students is a six-year programme that includes five years of course work and one year of internship. Each year is divided in to two semesters (Table 10).

Table 10

Six-Year Medical Curriculum Programme for International Students in a Medical University in Beijing

Courses	Semester	Hours	Credits	Courses	Semester	Hours	Credits
General Information on China	1	36	2	Pathology	5	54	3
Chinese	1-3	192	12	Experimental Abnormal Morphology	5	45	2.5
Physical Education	1-4	64	4	Medical Chinese	4-6	136	8
Advanced Mathematics	1	54	3	Medical Statistics	6	54	3
Medical Physics	1	90	5	Neurobiology	6	54	3
Basic Chemistry	1	72	4	Medical Ethics	6	27	1.5
Computer Basics	2	54	3	Preventive Medicine	6	54	3
Organic Chemistry	2	72	4	Physical Diagnosis	7	117	6.5
Systematic Anatomy	2	153	8.5	Experimental Diagnosis	7	45	2.5
China and Foreign Medical History	3	18	1	Medical Imaging (including ultrasound)	7	54	3

Regional Anatomy	3	63	3	General Surgery	7	45	2.5
Cell Biology	3	45	2.5	Anaesthesia	7	27	1.5
Biochemistry	3	72	4	Introduction to General Practice	7	27	1.5
Medical Biological Experiment (1)	3	30	2	Internal Medicine	8	171	9.5
Medical Genetics	4	36	2	Emergency Medicine	8	36	2
Molecular Biology	4	27	1.5	Surgery	8	180	10
Medical Biological Experiment (2)	4	32	2	Nuclear Medicine	9	18	1
Physiology	4	81	4.5	Obstetrics & Gynaecology	9	90	5
Medical Function Experiment (1)	4	34	2	Paediatrics	9	90	5
Medical Microbiology	4	45	2.5	Infectious Diseases	9	72	4
Medical Immunology	4	45	2.5	Neurology	9	45	2.5
Human Parasitology	4	18	1	Ocular Science	9	27	1.5
Pathogen Biology and Immunology Experiment	4	36	2	Otolaryngology	9	27	1.5
Medical Psychology	5	18	1	Stomatology	10	27	1.5
Medical Literature Retrieval	5	18	1	Dermatology & Venereology	10	27	1.5
Pathophysiology	5	45	2.5	Psychiatry	10	45	2.5
Pharmacology	5	72	4	Clinical Epidemiology	10	18	1
Medical Function Experiment (2)	5	42	2.5	Evidence-based Medicine	10	18	1
Histology and Embryology	3	99	5.5	Clinical Pathology	8	18	1
Social Medicine and Health Administration	5	18	1	Clinical Pharmacology	8	18	1
Chinese Medicine	6	45	2.5	Rehabilitative Medicine	9	27	1.5
Acupuncture	6	54	3	Health Law	10	18	1
Nutrition and Health	6	18	1	Health System Funding	10	18	1
Clinical Immunology	8	18	1				

Source: Compiled from a Medical College in Beijing, 2019

Going by the curriculum described by the students from a medical university in Beijing - the first year is a foundation course that consists of Chinese language and basics of Physics, Chemistry, Biology and Mathematics. Since this is an international students' curriculum, not every student comes with the basic knowledge of the sciences. The college takes up the basic courses in the first-semester. The language training also begins in the first year. The language not only includes basic Chinese but also medical Chinese so that students are able to interact with patients during internship. Second semester includes chemistry, computer basics and systemic anatomy. From the second and third year there are pre-medical subjects, including anatomy, physiology, histogeny, biochemistry and the rest. The language training continues in these years. The pre-clinical subjects continue till the third-year first semester. In the second semester of the third-year they have subjects related to traditional Chinese medicines (TCM), acupuncture and so on. Once they enter the first semester of the fourth year, they get into the clinical side of the training related to the subjects they covered during the first three years of pre-medical training. The fourth year is the introduction to clinical subjects and it is during this year that they get exposure to patients. In Wuhan while the curriculum is more or less the same, they have four years of theory and the 5th year is clinical year and 6th year is the internship year. During the 6 years they learn basic Chinese in the first two years and medical Chinese in the next 4 years.

There are a few things that the agents do not divulge. These include problems that could arise regarding language. The impression that is conveyed is that the medium of instruction will be in English. As discussed, the MoE provides names of only 45 universities that will provide MBBS in English. Even if that is the case, communication and interaction with faculty is limited due to lack of fluency in English. They also do not give them full information about the curriculum or evaluation. The fact that the first year consists of basic science courses is not revealed and hence many students feel it is a waste of time since they have already covered this course in their high school years (curriculum given in Table 10). The universities under MoE fare better compared to those universities under provincial government.

The Indian students perceived the curriculum layout as abrupt.

"The curriculum layout is very abrupt, a student might take time to finish a subject in 7-8 months, we have to do it in 3-4 months. Even for the best student, this becomes impossible. They haven't broken up the subjects properly. Some semester you do not have anything to do, and some you have everything. You can't finish a particular topic while sitting in a class for one hour. In my textbook the same topic is 25 pages. The number of classes, course layout, structure of the programme needs to undergo change. But this is very different for every university." (Student, Beijing, May 2019).

On the other hand, students felt the stream of medical education for Chinese students was quite different.So while the Chinese students have a very rigorous curriculum for their undergraduate course, the international students have comparatively a superficial one and the pedagogical techniques are vastly different and not up to the mark. Students are taught through power points and language is a major barrier. As a result, the explanations offered by the faculty is not clear. The mode of transaction through power point presentations provides only a summary and overview of the subject matter. Class discussions, interactions with the faculty are restricted due to the language barrier for both the teachers and the students. They felt that theory was not strong and since that was weak, they could not understand the practicals either.

There is much variance in practical training across universities. In Beijing, there were guided practicals and was demonstrated by the teacher, while in Wuhan, there was less exposure to practical training and even if there was it was only observation. They got hands on experience only in the 5^{th} year of their curriculum. Language becomes a major impediment when it came to interacting with patients. Given their lack of adequate proficiency, patient interaction was difficult. Some also said that given their lack of confidence in themselves and the fact that they were foreigners also created a distance with Chinese patients where patients did not want to be touched by a foreign student.

Some of the books used in the curriculum are standard books that are used internationally while others are English translations of Chinese text books.

The students said that they were free to select whichever book they wished to study. Some opined that the theoretical component was weak and therefore, they felt under confident. Some colleges encouraged students to interact with professors and Chinese students while others just left them alone. This leads to a sense of loneliness and a lack of direction and purpose. A few junior students said that they have "fun" and "enjoy" their time here. They feel a sense of liberation being away from parental control and societal restrictions that they face back home.

It is a challenge for both the faculty as well as the students to interact and communicate. The faculty feel that international students are generally hard working but the quality of students has only improved in recent years. This probably corresponds to the reform by the Indian government that has made qualifying the NEET mandatory for all students applying abroad. This eligibility criterion was brought in as a means to regulate the quality of students two years back.

Comparing quality of education between India and China, one thing that was said by students across universities was that the resources in medical universities in China were abundant. But a lot of the practical exposures are through observation and not hands-on. Technologically, the Chinese universities have kept up with the latest and have advanced infrastructure and equipment. There are transactions through computer simulations in these universities too. They have installed these simulations in corridors and anyone can do it anytime but interactions with patients and treating patients through direct contact is limited.There are times when there are guest faculties who are invited from other countries and students find these more interesting and engaging. But these are far and few.

An Indian medical doctor who was temporarily a guest faculty for international students in a medical university in Beijing said that curriculum was vastly different from India. She said that 10-15 per cent students were studious while the rest seemed quite casual. The rest 85 per cent were also the ones who did not have strong foundation and did not have the capacity to absorb.

Another important insight was that, epidemiologically the cases that students see in Chinese hospitals are very different from India. They get to see a range of non-communicable diseases and not enough of communicable diseases common too tropical areas. They need to learn many of these afresh, when in India. This is a drawback for them when they have to give the FMGE.

Inter-university interaction among international students from various universities is less, so international students do not know what is happening in other universities. But the students feel this is gradually changing. There was a clinical skills competition across 30 universities for international students in the last semester of 2018, which was helpful for students who got the meet international students from other universities in China.

The systems of evaluation for the international and Chinese stream are very different. The Chinese stream has a centralized exam. The international stream is internal evaluation based on review tests, assignments and attendance. The Chinese government has stipulated a minimum attendance of 60 per cent per semester in order to qualify for continuation. The evaluation is restricted to reviews at the end of each semester. This is generally out of a score of 100, out of which 20 marks is for practicals. Most students opined that reviews lacked rigour and were often repeats of earlier question papers, easy and predictable. These papers were given in advance to students so most would prepare the answers that ensured that they get at least the minimum passing mark. Many of them opined that this was a dilution of the standards. There are no oral or practical examinations.

In recent years, the students said that there was a conscious shift by the faculty in the international stream to no longer repeat the review papers in the recent years. This was also because the low scores in the FMGE is a reflection on their competence and lack of rigour.

b. Internship year

In some universities 6th year of internship is compulsory while in some others it is optional. Internship year is critical for all students and they feel they do not get enough training due to lack of communication. In the Capital Medical University in Beijing, the students said that they have to give a Chinese language exam before they enter the internship year but that is not the case in other universities. Sometimes patients do not want to interact or be touched by international students. Most of the times students observe and if motivated, ask questions to the faculty.

"I personally feel that it would be better to do internship in India. Communication becomes a big issue here. MCI needs to put in a clause stating that anyone finishing education abroad has to do internship only back home. In some universities, students can finish their 5 years and go back home to do internship. Here, we have to finish all 6 years, including last year of internship since that is what the university programme states. Since universities here are autonomous, they won't make changes here. Only if the laws change back in India, will the universities here be compelled to make the changes" (Student, Beijing, May 2019).

The experience during the internship year is contingent on the initiative and hard work of the student.The positives are that doctor-student ratio during internship is better compared to India. Due to the lack of hands-on experience with patients in China some students suggested that they be allowed to intern in India after they complete the education in China. It could be in the form of 'supervision internship'. They could do this during the period that they prepare for FMGE. They felt that this way they would face less pressure from families and society and would not be perceived as doing nothing on their return.

c. The Foreign Medical Graduates Examination (FMGE) in India

On their return to India, the FMGE is a necessity for getting a license to practice in India. The clearing of the FMGE is a source of anxiety for all students. Some students even said that most of their time studying in China is geared towards clearing

the FMGE. They often start preparing for this exam in their fourth year itself. However, the percentage of students clearing the FMGE is low. Most are unable to clear it in the first attempt. This is a huge setback since they are in a limbo after completion of the course and waiting for clearing the FMGE. Very few have cleared it in the first instance while others have attempted even up to eight times over a period of four years.

Earlier students gave FMGE only when they returned to India but in later years they sought clarification from the MCI and figured that they could give the exam during the internship year, which they feel is better as they can avoid facing the family and societal pressure.

There are impediments to clearing FMGE. According to some students, *"It depends on the individual – how much you study or get distracted. You know your standard of education back home and you know what you have to give at the end of six years. If a student understands that, they manage to clear the FMGE. We cannot get up and give the FMGE on the basis of what we study here. You need to take a specialised training because in India they teach you everything in detail and in-depth. Here it is more at the USMLE level but India the training is rigorous, theory based. Also, the public health system is very different here from India, so we need to cover up that too. We have to put 30-40 per cent extra to clear the exam. Few subjects like forensic medicine are not covered here but FMGE covers that"* (Student, Medical University, Beijing, May 2019).

The students in Beijing felt that the FMGE was not a tough exam. If they had studied in an Indian University, it would have been easier to clear. The standards of the FMGE are based on the focus of the Indian curriculum. They feel they do not know the basics and have to self-study. When the students return, some take six-months training as interns. The State Medical Council allows internship. Students in Wuhan felt that if there was extensive practical training and internship year was well-spent, it would be easier to crack the FMGE.

It is interesting to note that some of the coaching centres from India reach out to the medical colleges in China with large number of Indian students. They have created

arrangements with the college to provide 'training' to the Indian students to clear FMGE on their return. This has of course, added to the vicious cycle of commercialisation of medical education.

"Tianjin university has this autonomous body that comes and does the training. It comes at a cost. So this autonomous body comes and prepares you for the entrance exam – it could be like taking extra classes. Lot of universities have this but our university does not. Tianjin has good percentage of students passing the FMGE. These autonomous bodies are coming from India, these are the coaching institutions located in India and negotiate with the autonomous medical colleges in China. This arrangement did not work out with our university" (Student, Beijing, May 2019).

Some students even said that while there was a uniform standard for FMGE, there was no uniform standard to assess output of those coming out of private medical colleges in India. There needed to be a qualifying exam for all doctors and a level playing field.

Perceptions have been created within the government, medical community and certain construction about the students graduating from China that has been formed by them. This perception is exclusionary. There are systemic ways in which they are being excluded and the hardworking students get affected.

Once students graduate from China – most prefer returning to India. The option of working in China is even more daunting. There is one qualifying exam to get a license to practice and their language proficiency has to be cleared with another exam (HSK level 5).[2] If they are able to do both then they can get a license and are eligible to apply for jobs. It is difficult to work as a doctor in China as the examination to qualify and enter the system is in Chinese. If a student is able to sit through the examination in Chinese and qualify, then any one can work in China. So a student can enter the Chinese medical system in two ways – s/he either takes the Chinese language exam and

[2] HSK is *Hanyu Shuiping Kaoshi*is translated as the Chinese Proficiency Test. Level 5 of HSK is designed for learners who can read Chinese newspapers and magazines, watch Chinese films and are capable of writing and delivering a lengthy speech in Chinese.

studies the Chinese curriculum and enters that way, or studies the international curriculum, clears the language exam HSK 5 and then has to qualify the Chinese medical exam. But these are tough options.

Few students who stay back to do Masters or post-graduation (MD) do that because they are keen and find a good teacher who is available to mentor them. Chinese students get to choose a mentor but the international students have to get a willing teacher. Not many students stay back for an MD. In the medical university in Beijing, there are probably 10 Indian students doing an MD programme, which is in Chinese. Students across universities said that a lot depended on self-drive and self-motivation – on how much hard work one wants to put and how much knowledge one would like to acquire. From this year, direct admission to post graduation for Indian students has been validated. One has to give the Diplomate of National Board (DNB) exam once the student returns to India with the MD degree. But with no clear rules and instructions, it is the students who face the uncertainty.

Some students even said that if they are unable to clear the FMGE they would choose to do a degree in Masters in Hospital Administration or other such health related course in India. These options seemed more plausible than completely leaving the line.

d. Experience of the students with the Indian Embassy in China

The general perception was that the Indian Embassy is not that involved with Indian students, compared to interactions of other international students with respect to their respective embassies/consulates. Students in general said that they sorted out any issues by consulting their seniors, rather than reaching out to the embassy. But they all were of the view that the embassy should reach out more to students. The interaction with the embassy is very minimalistic, restricted to festivals and events.

The students suggested ways in which the embassy could be more proactive and engage with students. They felt the embassy could play a much larger role in keeping the student community informed and look out for them. They felt the embassy could play the intermediary between the developments occurring in India regarding changes

in rules and regulations related to medical education and keep the student community in China informed. While there was a social media group that the Embassy had created, this needed moderators and a student representative from each university. They felt the Indian Embassy could also have a list of authorised agents through whom prospective students could apply and also give instructions to apply directly to the universities so as to avoid the middlemen or agents.

e. Psycho-social stresses faced by Indian Students

Adjusting to a new environment where language is a barrier is stressful. Where there are large number of Indian students there is a buffer to deal with their insecurity. The academic programme and its transaction require a great deal of self motivation and hard work. There are handfuls that manage to do this but for many the course itself is not demanding. Most students coming to China for medical education cannot afford the high fee structure of Indian private medical colleges. They come from modest backgrounds and even the lowered fee in China is a financial burden on their parents. Some reported having taken educational loans or even the sale of assets in order to finance their children's education. Some of them feel a sense of guilt and others try their hand at work or other small business to earn some money, which is not allowed by the Chinese authorities. The loneliness and alienation leads to drug dependence among a few. The researchers were told that there are a few students have been deported for drug use and other violations and also about one tragic case of suicide by a student who had to drop out due to drug abuse and couldn't cope with life during recovery.

The family and societal pressures and aspirations have an impact on the students' psycho-social health.

Students articulated what they saw as stresses when they had to return home. Social expectations are high and they are unable to avoid the questions and snide remarks of many.For those who are hard-working and sincere, they feel discriminated the way society back home perceives them.

"I have same aspirations as the rest of medical students graduating from India. Why should I be discriminated? I have sleepless nights and I am having mental break downs as well. I have to put twice as much hard work here but when I go back home I am looked upon as if I don't know anything. And that is unfair. And if I don't pass FMGE, I am seen in a way as if I could never do this" (Student, Beijing, May 2019).

The entire journey feels stressful to many, as if it is never-ending.

"Sometimes you are in such a dark space. Parents know nothing about what we go through here. From my family I will be the first doctor. Very difficult to explain to my parents the kind of mental torture I go through. My parents are very supportive but only thing I get to hear from them is that this will pass. But it will take me time to explain to them that this will pass for now but there is more to come" (Student, Beijing, May 2019).

Families and society back home have their own aspirations and expectations from the children who return. A health official from the Kerala Health Department said that, *"Many of the students who return from China are unable to clear the FMGE. They are also from lower middle-class backgrounds. They get absorbed with low salaries from Rs 10,000 to Rs. 15,000 in private hospitals through some connection. The families also seek dowries for their sons who are seen as doctors with foreign training"* (Health Official, Mumbai, July 2019).

During their stay in China, students get attracted to other aspects of the Chinese lives. They venture into different forays and small businesses – this varies from being a travel agent, some other small business with an Indian trader and so on. Some also get jobs as English tutors, bouncers or even get part roles in the local film industry as was seen in one province. College authorities are strict and do keep tabs but are unable to monitor activities outside the universities. Many students become sub-agents for the main agents in India and continue with it. Cases of drug abuse and drop-outs are reported from time to time but the exact number is not known. The Embassy has to intervene from time to time, in order to negotiate with Chinese authorities especially when it involves a disciplinary action like expulsions or a scrape with the police.

Unfortunately, having spent six years in a country that is a critical period of their young lives, many see it as a waste of years, while others have reconciled with the fact that they are here for a purpose and wish to finish what they came for. But surprisingly, on the whole, none of them were willing to come back to China as they felt they had reached saturation. Some were fine with coming back as tourists but only to visit other cities, not the one they stayed in. The researchers had a sense that at least some would have been excited to live in a fascinating country as China but very few took efforts to reach out or understand the Chinese lives and a society that has as much rich history as India.

China was never a part of the imagination of most of these students during their growing up years, as is with other students in India, but during these years spent in a new country, they are unable to make it their home. Many are also unable to adapt to the Chinese way. A lot has to do with dealing with daily stresses of a student life.

The sense was that the battle was a lonely one with little systemic support by the Indian government, MCI and the Chinese universities. Those students who were hard-working, sincere and focused, struggled but survived and eventually were on the path to become medical doctors. The others who did not have the capacity to cope, either dropped-out or found other means to cope and escape the stresses.

iv. Challenges and dilemmas for the Chinese and Indian governments

The quality of medical education in China and the quality of Indian students emerging from these universities is clearly a matter of concern for both governments. The quality of students is variable and is a challenge in itself. Language is one of the greatest barrier both sides – for students and faculty who teach. Some medical colleges are affiliated to MoE and others to provincial governments, hence there is immense variation across these universities. According to a senior official at the MoE, PRC, "international medical education is market driven". This clearly comes out from our study too.

Given the many challenges faced with teaching international students, the Chinese government started addressing some of these issues. The challenges included variable levels of competency of students applying for the course; lack of language competency of students; variable competency of teacher educators across medical colleges. To address some of these issues in 2017 a committee was set up to review quality of medical education for international students.

The Indian government has also taken few steps where qualifying NEET is compulsory for Indian students to study medicine abroad. This has been a good move to maintain quality and quantity of students but that has not resolved the supply issues back home.

Policy Recommendations and Conclusions

The study has brought forth the larger picture of commercialisation of medical education in India and China. There is a whole industry that has emerged around this phenomenon. The agents, sub-agents on either side, coaching centres for FMGE, apart from an entire ecosystem around the Chinese medical universities, for the students. It is a market-driven phenomenon with the involvement of several actors and several ministries on either side. The larger questions of demand and supply, quality of medical education, and checking corruption have to be addressed by the government (Centre and States) in light of the recent NMC Bill. There are many issues yet to be resolved and it is unclear whether the NMC Bill addresses all these issues directly. Till these are addressed, the challenges facing students who go to China or other countries in Asia to study medicine will remain. But can some of the issues emerging in this study be addressed for the benefit of the future generations of students who will be travelling to China?

The students studying in China cross paths with all the ministries and actors during the entire process, but finally have to make it on their own to reach the other side of the FMGE. There are several recommendations that can be made to make this entire process smoother and coordinated to help them get a clearer picture of what lies ahead. Students need help before going to China – information on how to apply directly to

medical universities was the most repeated suggestion. That way they are not vulnerable to the agent.

They had several suggestions for the Indian Embassy in China to address some of their concerns. They felt that the need for information regarding change in rules and procedures for FMGE, regulations governing medical education for foreign graduates and other aspects of medical education was important. They wished for updates on these. They also wanted to be connected to the larger student community across medical colleges through social media but with a moderator so that only relevant information is posted to them.They seek information to facilitate admissions directly with the medical colleges like other students from other countries do, rather than depending on agents. They want information on licensed agents to be available on the website. They wanted Embassy officials to keep in touch with the administration of the International Office of medical colleges across provinces.

One question that kept emerging during the interviews was who is accountable? Is it that only the students will be held responsible and accountable for their lives because they made a choice of studying in China? These choices are contingent on the pressures of family, society, financial condition and the system of medical education itself. They are all equally responsible for the choices and decisions that are made in the process. There is a need for inter-ministerial dialogue and coordination because of the multiple stakeholders (MHRD, MoH, MEA of India) involved. There must be an interface between the MCI (or what is the new body under the National Medical Council), Ministry of Health, Ministry of Human Resource Development and the Education Department of the Indian Embassy in Beijing. They need to regularly interact with colleges and students that are recognised for international students. They should assess the core competencies of the programme provided by the medical colleges and develop some protocols for quality check along with the MoE of the PRC. Some positive developments have taken place in the past two years but there needs to be a sustained effort to keep these checks in place. This also helps to contextualise the process of student mobility to study medicine abroad and undo the negative perceptions and prejudices that have been created of students who return and struggle to find

their ground. The return of students disappointed, stressed, dejected and discriminated has implications for the quality of doctors practicing in India. Of course individual choice matters, but students cannot be held responsible for choosing to go to China. This definitely speaks of systems that are not in place back home. This also brings us to question the quality of doctors graduating from private Indian medical colleges, many of them who were able to get through because of their ability to pay and without an exit exam.

In the even larger context of India-China cooperation and ties, the phenomenon has to be addressed more seriously. Both sides can improve the process, quality of education and have regulatory mechanisms in place.

References

Akhter, Shahid. (2019): 'A policy is needed to bring foreign medical graduates at par with Indian students: Dr Pawan Kapoor', Economic Times, 24 April, https://health.economictimes.indiatimes.com/news/industry/a-policy-is-need-to-bring foreign-medical-graduates-at-par-with-indian-students-dr-pawan-kapoor/69017430(accessed on 24 April 2019).

Ashok, Sowmiya. (2019): 'Cheaper fees, easy admissions: Indian medical students shift gaze towards China', The Indian Express, 29 July, https://indianexpress.com/article/education/medical-university-education-china-hrd-mbbs-5857218/ (accessed on 29 July 2019).

Banerjee, Poulomi. (2015); 'Here's why foreign medical degrees are no longer fancy', Hindustan Times, 23 November, http://www.hindustantimes.com/education/here-s-why-foreign-medical-degrees-are-no-longer-fancy/story-HpZtWmiCQFv877cfPqtXZO.html (accessed on 20 June 2016).

Baru, Rama and ArchanaDiwate. (2015): 'Vyapam is the Symptom, Criminalisation of Medical Education is the Disease', The Wire, 12 July, http://thewire.in/2015/07/12/vyapam-is-the-symptom-criminalisation-of-medical-education-is-the-disease-6170/ (accessed on 10 June 2016).

Bhattacharyya, Rica. (2012): 'Lured by cheaper fee structure, wannabe medicos opt Chinese medical colleges', The Economic Times, 17 August, http://articles.economictimes.indiatimes.com/2012-08-17/news/33249708_1_medical-colleges-private-colleges-aspiring-medical-students (accessed on 7 July 2016).

Diwate, Archana (2016): Social Characteristics of Private Medical Colleges in India: A Study of Select States, Unpublished PhD Thesis submitted to the Centre of Social Medicine and Community Health, Jawaharlal Nehru University, New Delhi.

Desikan, Shubashree. (2013): 'Silk route to knowledge', The Hindu, 14 July, http://www.thehindu.com/features/education/college-and-university/silk-route-toknowledge/article4911836.ece (accessed on 7 July 2016).

Embassy of India. (2019): Press Release, Embassy of India in Beijing, 2019, http://www.eoibeijing.gov.in/Regarding-Medical-Education-in-China.php (accessed on 22 May 2019).

Embassy of India. (2019): Guidelines for Indian Students Wishing to Study in China, http://www.eoibeijing.gov.in/guideline-for-indian.php(accessed on 22 May 2019).

Embassy of India. (2019): Advisory by the Consulate General of India in Shanghai, https://www.cgishanghai.gov.in/pdf/event/Medical_college_advisory.pdf (accessed on 22 May 2019).

Ghosh, Abantika. (2019): 'Just 15% of Indians with foreign medical degrees clear test once they return home', The Indian Express, 26 October, https://indianexpress.com/article/india/just-15-of-indians-with-foreign-medical-degrees-clear-test-once-they-return-home-6088550/ (accessed on 26 October 2019).

Institute for International Education. n. d.a 'Project Atlas', http://www.iie.org/Research-and-Publications/Project-Atlas (accessed on 21 June 2016).

Institute for International Education. n. d.b 'Project Atlas', http://www.iie.org/Services/Project-Atlas/China/International-Students-In-China#.V2feFvl96M8 (accessed on 21 June 2016).

K. Deepalakshmi. (2018): 'US continues to be preferred destination for Indian students; UAE sees a surge', The Hindu, 27 July, https://www.thehindu.com/education/us-continues-to-be-preferred-destination-for-indian-studentsuae-sees-a-surge/article24533290.ece, (accessed on 8 June 2019).

Khosla, Varuni. (2015): 'Around 3 lakh Indian students go abroad annually, 33% take property-backed loans', The Economic Times, 28 August http://articles.economictimes.indiatimes.com/2015-08-28/wealth/65969493_1_north-india-credila-students (accessed on 20 June 2016).

Kumar Vr, Krishna. (2013): 'Asia Weekly: Just what the doctor ordered', 20 December, China daily Asia, http://www.chinadailyasia.com/life/2013-12/20/content_15107472.html (accessed on 27 June 2016).

Medical Council of India (MCI). (2016a): 'List of Colleges Teaching MBBS', http://www.mciindia.org/InformationDesk/ForStudents/ListofCollegesTeachingMBBS.aspx (accessed on 20 June 2016).

MCI. (2016b): 'New list of Chinese Medical Institutions admitting International Students for Academic Year 2016-2017', http://www.mciindia.org/MediaRoom/ListofChinaColleges.aspx(accessed on 20 June 2016).

MCI. (2019): Medical Council of India, Competency based Undergraduate curriculum for the Indian Medical Graduate, 2018, https://www.mciindia.org/CMS/information-desk/for-colleges/ug-curriculum(accessed on 8 June 2019).

Mishra, Alya. (2012): 'China has become preferred destination for medical education', University World News, Issue No: 238, 9 September, http://www.universityworldnews.com/article.php?story=20120904100946519 (accessed on 7 July 2016).

M. M. Advisory Services. (2015): 'Indian Students Mobility Research Report: Latest Trends from India and Globally', http://mdotm.in/wp-content/uploads/2015/05/Students-Mobility-Report-web.pdf (accessed on 21 June 2016).

Nagarajan, R. (2019a): 'How medical colleges in India became a business, one policy change at a time', The Times of India, 8 June, https://timesofindia.indiatimes.com/india/how-medical-colleges-in-india-became-a-business-one-policy-change-at-a-time/articleshow/69707594.cms (accessed on 10 June 2019).

Nagarajan, Rema. (2019b): Money, not quota, dilutes merit in medical admissions, TheTimes of India, 11 June, https://timesofindia.indiatimes.com/india/Money-not-quota-dilutes-merit-in-medical-admissions/articleshow/64534518.cms(accessed on 15 June 2019).

Nagarajan, Rema. (2019c): Some MBBS students got 0 or less in NEET papers, The Times of India, 16 July, https://timesofindia.indiatimes.com/india/some-mbbs-students-got-0-or-less-in-neet-papers/articleshow/65002249.cms (accessed on 20 July 2019).

Nagarajan, Rema. (2019d): 'New bill could be jackpot for private medical colleges', Times of India, 24 July, https://timesofindia.indiatimes.com/home/education/new-bill-could-be-jackpot-for-private-medical-colleges/articleshow/70354437.cms (accessed on 24 July 2019)

Nundy, Madhurima. (2016): 'Indian Students in Higher Education Abroad: The Case of Medical Education in China', ICS Analysis, Issue No. 40, Institute of Chinese Studies.

Onsman, Andrys. (2013): 'Why do international students go to China?', University World News, Issue No. 293, 25 October, http://www.universityworldnews.com/article.php?story=20131022125122189 (accessed on 27 June 2016).

Patranobis, S. (2019): Only 45 varsities allowed to teach MBBS in English in China: Beijing, Hindustan Times, 29 April, https://www.hindustantimes.com/education/only-45-medical-varsities-listed-to-teach-mbbs-in-english-in-china-beijing/story-pYavo9INMulCQrvKaf ThuL.html.

Prabhu, G. (2019): 'The Disappearing Act: Humanities in the Medical Curriculum in India', Indian Journal of Medical Ethics, Vol. 4, No. 3, https://ijme.in/articles/the-disappearing-act-humanities-in-the-medical-curriculum-in-india/?galley=html, (accessed on 4 September 2019).

Press Trust of India. (2015): 'Number of Indian students in China crosses 13,500', Economic Times, 25 May, http://economictimes.indiatimes.com/nri/nris-in-news/number-of-indian-students-in-china-crosses-13500/articleshow/47420552.cms (accessed on 20 June 2016).

PRS Legislative Research. (2019): 'The National Medical Commission Bill 2019, https://www.prsindia.org/billtrack/national-medical-commission-bill-2019 (accessed on 24 July 2019).

Rajya Sabha Secretariat. (2016): The Functioning of Medical Council of India, Department Related Parliamentary Standing Committee on Health and Family Welfare, Report No. 92, Parliament of India, New Delhi.

Snehi, Neeru. (2013): 'Student Mobility at Tertiary Level in India: Status, Prospects and Challenges', National Institute of Educational Planning and Administration, New Delhi, http://www.niepa.ac.in/New/download/Publications/Occasional%20Paper%2044Neeru Snehi.pdf (accessed on 20 June 2018).

The Wire Analysis. (2018): 'As NEET Undercuts Merit Entry to Medical Colleges, Reserved Category Students Suffer', The Wire, 13 June, https://thewire.in/health/neet-mbbs-medical-students-mandatory-merit-fees (accessed on 24 June 2019).

UNESCO. (2013): 'The International Mobility of Students in Asia and the Pacific', UNESCO, Bangkok, http://www.uis.unesco.org/Library/Documents/international-student-mobility-asia-pacific-education-2013-en.pdf (accessed on 21 June 2016).

Wu, L., Y. Wang, X. Peng, M. Song, X. Guo, H. Nelson and W. Wang. (2014): 'Development of a Medical Academic Degree System in China', Medical Education Online, 19: 23141, http://dx.doi.org/10.3402/meo.v19.23141.

Zhao, Xinying. (2015): 'More Indians studying in China', China Daily, 25 May, http://www.chinadaily.com.cn/china/2015-05/25/content_20807203.html (accessed on 27 June 2016).

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