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Review Article

Education Section

Medical Education System in South Asia and its Consequences on our Health: A Review

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ABSTRACT

South Asia is home to nearly one-quarter of the world's population, making it the most densely populated geographical region in the world plagued with high rates of communicable and non-communicable diseases, maternal and child mortality and morbidity and road traffic injuries, to name a few. The role and objective of medical education is to produce compassionate healers who then go on to serve society in their own capacity and as a collective unit. Every country wants a better system with good medical academics and specialists. The importance of medical education is slowly being acknowledged in medical schools across South Asia. Educational system suffering from weak financial models along with logistical hinderance due to political/social pressures have weak output. Countries of South Asia need to improve their medical education and system to achieve success and meet the standards of education being provided in other regions of the world. Medical schools in South Asia have been lacking quality and quantity of medical education since a long time due to weak and poorly defined curriculum. This curriculum needs to be improved according to the community needs and the country as a whole. It is mandatory to make new policies and plans to make this system better for quality health care.

Keywords: Curriculum, Developing country, Postgraduate, Technology, Undergraduate

INTRODUCTION

South Asia is home to nearly one quarter of the world's population, making it the most densely populated geographical region in the world. The region is also plagued with high rates of communicable and non-communicable diseases, violent conflicts, rising tobacco use, and the devastating effects of recent floods and earthquakes, to name a few [1]. To fight these challenges, the new breed of medical doctors need to be well-equipped with the relevant knowledge and practices to fight the growing demands of the masses. South Asia comprises of multiple countries, which although comparable in many aspects, differ in socioeconomic aspects, the ratio of the urban to rural populations and the status of health care and medical education. The structure, method of teaching, roles and priorities of medical education varies across South Asia unlike the relatively homogenous systems followed in North America and Europe. Many factors play a part in this variegation ranging from the very distinct cultures and religions to the colonization patterns of the South Asian region. In the current years, health care systems, technology, political systems and microeconomic strategies have gone through serious alterations and advancements. To manage and handle these changes, educational organizations all around the worldare trying to meet the challenge of improving their curriculum, making it better and efficient to fulfill the needs of the time according to the real needs of the community and country as a whole.

A number of authorities have mentioned the need to improvise the system and reorient medical education [2-5]. These authorities include “The Edinburgh Declaration" of World Federation for Medical Education (WFME) and "Tomorrow's Doctors" of General Medical Council (GMC) of UK [6-10]. These authorities have clearly stated a number of certain strategies to guide reforms and make need based changes in medical education. The basis for reform of medical education is now Edinburgh Declaration with translation into major languages [11-13].

DISCUSSION

The role and objective of medical education is to produce compassionate healers who then go on to serve society in their own capacity and as a collective unit. Every country wants a better system with good medical academics and specialists. The medical education system is South Asia is largely modelled after the British System with some variations. There is a five year MBBS course followed by one year of compulsory internship in which the core rotations of medicine and surgery are allocated equal amount of time.

Medical Educations Systems in Different Countries of South Asia

Medical education in South Asia is regulated by centralized bodies such as the Medical Council of India and the Pakistan Medical and Dental Council. The role of these bodies is to ensure that the standard of medical education is maintained throughout the country and any irregularities noticed. They also ensure promotion and maintenance of medical education in their respective countries.

India, Bangladesh and Pakistan have a number of outstanding centers for cardiovascular disease, endocrinology, ophthalmology, mental health and neuroscience [14]. Since, the last two decades there has been rapid proliferation of medical colleges of India especially in the private sector. Indian medical schools produce the largest number of doctors compared to any region all around the world, that is 30, 408 from 271 medical schools, yearly [15]. The medical council of India makes the important reforms of medical curriculum. The medical schools concentrate a lot on the infrastructure and human resources while not much emphasis is paid on the process and quality of medical education. Moreover, there is no uniformity in the standard of medical education

across the country due to different rules and regulations by the different universities of India and their affiliated medical colleges [15]. Pandit Jawaharlal Nehru, first Prime Minister of India, made investments in developing science and technology after independence from which India is benefitting in this time. Institutes of medicine, science and information technology had an excellent progress with the support of the Indian government policies. However, the medical curriculum needs urgent attention. The course outlines of most medical colleges are soambiguous that educational programs have been facing difficulty to maintain equal standards for healthcare education across the country. These programs have been following out dated outlines and concepts. Hence, it is known that the present curriculum is not meeting the standard quality [16].

Medical education in Pakistan has not changed much since independence. Pakistan Medical and Dental Council (PMDC) outlines the medical curriculum of Pakistan. Unfortunately, most of the faculty members are still unaware of these outlines [17]. The standard and quality of medical education is associated with accessible facilities, financial inputs and teaching [17]. In Pakistan, however, policies and plans regarding financial inputs for medical education are deficient. Moreover, facilities for teaching are insufficient. Pakistani medical colleges focus more on knowledge portion which only helps students pass exams and tests. Not many students are good at applying this knowledge as Pakistani medical system mainly concentrates on text which tends to be forgotten [18]. It is important for the success of medical institutions to properly assess their performance, knowledge and competence, which the medical colleges in Pakistan are deficient in. Students study to excel in exams and care less about the application part of the knowledge. Similarly, there is more attention paid to teaching rather than to learning.

In Iran, Ministry of Health is the organization for planning; monitoring and supervision of health related activities for private and public sectors. The government merged health care with medical education for a better and coordinated approach to health care. This has increased the quality of health services inIran with objective-based learning [18]. This is in contrast to other south Asian nations where the medical education system is under-prioritized by the government and private body/counsel looks over the educational matters [18]. However, in teaching hospitals attendants have to go through a lot of workload which makes them reconsider the training priority set for interns and residents. Public medical universities offer free education to the students [19]. According to law, these students have to pay back their loan by working for a certain time in a place assigned by the Ministry of Health and Medical Education.

Sri Lanka, dedicates 4% of its Gross Domestic Product (GDP) to health. It is a middle income country witha very high literacy rate. Since 1945, this country has been providing free education from primary to tertiary level in all state schools and universities (with affiliated medical colleges). Hence, Sri Lanka has established new medical schools and has been enrolling a great number of medical students [19]. After independence, apart from Bhutan and Maldives, South Asia prospered with increasing undergraduate and postgraduate education [14].

Medical Education and Private Sector

Another interesting point to note is that a number of private medical schools have opened throughout South Asia. Private medical schools now outnumber the public medical schools in many countries of South Asia [19]. There are various opinions and concerns about private medical schools compared to publicones. Firstly, private medical schools rarely receive any grants or funding from the government and are solely dependent on high tuition fees to cover their costs. For example, medical schools in Nepal charge between $ 32,000–40,000 for Nepalese students and between $ 50,000–60,000 for foreigners [20]. These tuition fees are comparable to private medical schools in other South Asian countries. The relatively large amount of fee translates into the fact that a large proportion of students cannot enroll in these schools due to socioeconomic reasons as the GDP per capita is relatively low in most South Asian countries [19].

Informal interactions with a variety of medical students across South Asia reveal that many of the mintend to migrate to more developed countries like UK and USA [20]. Studies are required on whether private school students are more likely to emigrate compared to government school ones. There is a paucity of research on the implications of a large number of doctors leaving the country after graduation causing massive brain drain. Even those doctors who decide to stay back in their home country prefer working in urban centers. Doctors avoid working in rural areas due to lack of proper infrastructure and low salaries.

Privatization of medical education has led to opening of a large number of medical schools [20]. Medical schools with a large number of resident faculty and other staff, students and a teaching hospital with patients seeking treatment can play an important role in socioeconomic development of the area within which they are situated [21]. This is especially true for certain medical colleges in Karachi, Pakistan which are located in near proximity to large slum populations which benefit from these institutions. This results in employment opportunities for the local populace and the investment of such a large amount of money boosts the local economy [22].

Advantages of Medical Education in South Asia

However, there are certain advantages of being a medical student in South Asia compared to being a medical student in North America. One of the biggest advantages is that students in this region, especially those enrolled in public sector colleges get an immense amount of clinical exposure and hands-on practice than medical students in North America do. One of the reasons for this trend is due to the fact that the concept of medical law suits is not as common in South Asia as it is in North America. Medical law suits carry a huge amount of risk to the medical student's career and to the hospital which results in them exercising extra care whilst handling patients. However, some medical schools in North America do offer adequate hands-on experience to their students with great clinical knowledge owing to more available resources/technology. On the contrary in South Asia, the patient population in most teaching hospitals affiliated with public sector hospitals belong to the lower socioeconomic classand cannot afford to pursue medical law suits [22].

Another advantage of pursuing medical education in South Asia is the low admission and yearly fees. The cost of medical education in public sector colleges is negligible since, it is state sponsored. Though, the cost of studying in private medical colleges may be high for the average population it is still very low when compared to medical schools in North America. For this reason, a large population of foreign students who natively belong to South Asia, attend medical school in their native country [22]. This also results in the majority of medical students having no obligation of any kind of medical school debt once they graduate. This is in stark contrast to most medical graduates in North America who spend years paying off their medical school loans once they graduate.

Efforts to Improve Medical Education

However, the standard of medical education compared to developed countries leaves much to be desired. Even though, there may be considerable variations within different countries

in South Asia, overall the standard of medical education is low when compared to North America or Europe. There is more emphasis on rote learning than there is on the student's clinical judgment. However, steps are being taken to alleviate these concerns.

The method of examination leaves a lot to be desired. Problems such as human bias when conducting examinations causes various problems. It is highly subjective issue that seriously needs attention. In many medical universities in India, answer papers are sent to a different province of the country. In medical education there are also viva-voce and practical examinations which can offer scope for bias. Improving the examination system to make it more objective and transparent remains an important challenge.

The importance of medical education is slowly being acknowledged in medical schools across South Asia. Medical Education Unit (MEU) or center, a body entrusted to spearhead educational enterprise within the medical school, is now a well-recognized fixture. A recent survey of 30 medical schools in Southeast Asia by the MEU of National University of Singapore showed that 72% of medical schools have an existing MEU. Medical schools across South Asia are gradually incorporating Case Based Learning into the medical school curriculum with more focus on clinical knowledge and evaluation of the medical student rather than their ability to rote learn medical facts [23]. The Professional Development Centre at Dow University of Health Sciences Karachi in Pakistan has an undergraduate skills lab which focuses on improving the clinical skills of medical students and uses mannequins and other aids for this purpose. Unfortunately, educational modernisation and research is not apparent yet in this area compared to other regions of the world [24]. Excluding few, majority of the medical schools in Asia have the traditional, teacher-centered and hospital based training [25-27]. The current curriculum in South Asia follows heavy emphasize on factual learning rather than having a firm grasp on skills, attitudes and practices [28]. Furthermore, neglect of economic, cultural, political and social perspectives in undergraduate medical training means that doctors can never conduct their practice with an understanding of the socialeconomic nature of the disease in the region. Students should be taught about medical ethics and human rights, rational drug prescribing, and the traditional systems of medicine that are hugely popular among their patients and the region as a whole. Also, faculty development which includes training the teachers in educational skills and practices must be the epicenter of the proposed reforms [29].

How to Improve Educational System to Meet Global Standards?

If all the countries want to replicate the success of Kerala State (India) and Sri Lanka, then they have to focus heavily on improving their community-based education programs by reorganizing their medical curriculum. Countries of South Asia need to improve their medical education and system to achieve success and meet the standards of education being provided in other regions of the world. Medical schools in South Asia have been lacking quality and quantity of medical education since a long time due to weak and poorly defined curriculum. This curriculum needs to be improved according to the community needs and the country as a whole. It is mandatory to make new policies and plans to make this system better for quality health care.

Sri Lanka, despite being plagued by a civil war for more than a decade, has the best health indicators in the region [30,31]. Life expectancy in Sri Lanka is around 70 years, infant mortality is around 16 per 1,000, and maternal mortality is about 30 per 100,000 live births [30]. India's Kerala state has similarly amazing health indicators, which are far better than the national average [31]. These two examples prove what can be achieved when governments spend their limited resources on education and on providing community-based primary care, rather than building expensive, specialist hospitals.

CONCLUSION

In conclusion, medical education system in South Asia needs a lot of changes for the betterment of the medical facilities in the region. The curriculum needs extensive improvement with focus on evidence-based medicine and active learning. The standard of medical examinations needs to be upgraded with use of newer technology and modern devices. This will help the region get great, intellectual doctors in the future, with minimal brain drain to developed countries, which will in turn help the overall health situation in the region.

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