

**Review article**

**Medical Education in south east Asia Current trend and Malaysia's perspective**

*Deka PK*

**Abstract**

After the concept of evidence based medicine it became important all over the world to have more structured, clinical oriented curriculum. According to the United Nations, Asia is divided into five sub regions. Brunei, Cambodia, East Timor, Indonesia, Laos, Malaysia, Myanmar, Philippines, Singapore, Thailand, and Vietnam belong to South-eastern Asia. To cope with the rapid changes in medical education curriculum most of the medical school in Asia particularly south East Asian countries adopted took up curriculum to fit to the current need. Medical education in Malaysia and Singapore developed similarly as the two countries together formed a federation in the British Empire until independence in 1957. Currently, in medical education, a trend has emerged to utilize "trustable research findings" in place of "personal opinions" as a basis for educational management and decision-making. Several of Malaysia's medical schools partner with other European, American and Asian schools, and students sometimes earn the certification or accreditation to practice in those countries as well. In the context of changing medical education system, South East Asia is also adopting up to date medical curriculum for the medical students in these countries. As a result rapid changes in curriculum with special focus on research these schools likely to become a hub of 'educational tourist'.

**Keywords:** Medical education, Malaysia, South East Asia.

**Introduction**

In the recent years there have been profound changes in political, economical and healthcare system. To cope with these changes, educational institutions around the world have been increasingly confronted with the challenge of making their curricula more meaningful and relevant to the needs of the time to produce doctors oriented to the real needs of the community<sup>1</sup>. Most of the medical schools in Asia have traditional, teacher-centred and hospital-based training<sup>2, 3, 4</sup> with a few exceptions only<sup>2</sup>. Another facet of education for capability is the increased importance placed on practical training and generic competencies<sup>1</sup>. Concern has been expressed that the undergraduate curriculum fails to fulfil this expectation, despite students' extensive exposure to clinical teaching<sup>5, 6, 7, 8</sup>. Currently, in medical education, a trend has emerged to utilize "trustable research findings" in place of "personal opinions" as a basis for educational management and decision-making. Opinion-based decision-making practiced in most of medical schools in curriculum development and other educational planning involves 'debates over assumptions, cherished traditions, and quaint myths'<sup>9</sup>.

**Geographical and Historical consideration**

According to the United Nations, Asia is divided into five sub regions. Brunei, Cambodia, East Timor, Indonesia, Laos, Malaysia, Myanmar, Philippines, Singapore, Thailand, and Vietnam belong to South-eastern Asia<sup>10</sup>.

It was not until the latter half of the 19th century that the first medical school was founded in South-East Asia. After several epidemics, a school of medicine was established in Batavia (Now Jakarta) by the Dutch in 1851. However, lessons of modern western medicine may have been taught earlier in Bangkok by D. B. Bradley (1804-73), a well-known MD of New York University, who first arrived in Bangkok in 1835 and spent most of his life there. The Dutch school in Batavia was attached to the military hospital and Dutch military physicians were the teachers. The purpose of the school was to train native practitioners, mainly to formalize widespread smallpox vaccination. At first the course lasted for two years, leading to the title of Doktor Djawa or Javanese physician; these doctors were trained to diagnose common diseases, to perform minor surgery, and to treat some illnesses. By 1875 the course was extended to six years with Dutch as the main language of

**\*Corresponds to:** Dr Prasanta Kumar Deka, Assistant professor, Department of Obstetrics and Gynaecology, Melaka Manipal medical College, Jalan Batu Hampar, Bukit Baru, Melaka, Malaysia. **Email:** nituldeka@gmail.com

instruction. In 1902 the school, having been reorganized with more buildings added, was renamed School tot Opleiding van Inlandsche Artsen (School for the Training of Native Physicians) and the course was extended to nine years after elementary school; a three-year preparatory course equivalent to junior high school was compulsory before students were allowed to enter the six-year medical school course. Medical education in Malaysia and Singapore developed similarly as the two countries together formed a federation in the British Empire until independence in 1957. Western medicine was introduced to Singapore by Thomas Prendergast, a sub-assistant surgeon who accompanied Sir Stamford Raffles when he landed in Singapore in 1819. From 1870, suitably qualified young men were sent annually by the government to the Madras Medical College in India to train as assistant surgeons. In 1905, the Straits and Federated Malay States Government Medical School was founded in Singapore. After the school received a large donation in 1912 from the King Edward VII Memorial Fund, the name of the school was changed to King Edward VII Medical School in 1913 and to the King Edward VII College of Medicine in 1921<sup>11</sup>.

### **What is the global scenario?**

Over the last 30 years, several changes have been introduced in medical education including the introduction of new contextualized approaches to instruction (e.g., problem-based learning [PBL]), the use of multimedia to enhance self-directed learning, the use of an integrated curriculum to address basic and clinical sciences, and the introduction of new formative and summative assessment tools that match with the curriculum changes<sup>12</sup>. Currently, in medical education, a trend has emerged to utilize "trustable research findings" in place of "personal opinions" as a basis for educational management and decision-making. Like other part of the world south East Asia experienced different modification and challenges in medical education. The profile of the doctor has been refashioned; the curricula has been reviewed with an increased use of community as learning resource; innovative approaches to medical education, such as problem-based learning and community-oriented education have been adopted; greater flexibility has been introduced in to the educational programmes; teachers' training on medical education has been initiated; and quality assurance, accreditation and curriculum evaluation mechanisms are being implemented. The establishment of medical education units in many medical schools and initiation of teachers' training programmes in recent years

have led to increased interest in teaching methodologies and sporadic research activities in medical education<sup>1</sup>. Moreover, promoting research in medical education and bridging the gap between research and education are crucial areas that Asian medical schools should seriously consider<sup>13</sup>. While data pertaining to medical education in this region are limited,<sup>14</sup> it is encouraging to see that research findings in education are gradually being incorporated into the practices of Asian medical schools<sup>13</sup>.

### **Scenario in Malaysia**

Several of Malaysia's medical schools partner with other European, American and Asian schools, and students sometimes earn the certification or accreditation to practice in those countries as well. Kuala Lumpur has two state universities with medical colleges. Universiti Kebangsaan of Malaysia is Malaysia's National University, established in 1970. The university's medical centre is a prominent research facility, and the Tun Seri Lanang library on campus is the largest library in Southeast Asia.

University of Malaya, the country's oldest higher education institution, offers undergraduate and post-graduate degrees in several medical fields. The university has won several prestigious awards for alternative energy and biotechnology research.

Unique to both Malaysia and the world, the International Islamic University Malaysia (IIUM) teaches and administrates in English, and hosts students from more than 90 countries. IIUM was founded in 1983 and strives to blend reason, science and profession with revelation, ethics and religion in what they call an "Islamization of knowledge"<sup>15</sup>. Malaysia also has professional schools that offer medical college programs. The Universiti Kuala Lumpur's Royal College of Medicine Perak works closely with Ipoh Hospital and several rural clinics to develop its curriculum and train students. Founded in 1999, the college has been the site of some British research studies.

The Melaka Manipal Medical College Malaysia (MMMC) is one of the newest institutions of the Manipal Education and Medical Group (MEMG), which comprises two universities, 18 professional colleges, 17 other institutions of higher learning, 18 secondary and primary schools, 11 hospitals and 8 rural health centres [16].

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which comprises two universities, 18 professional colleges, 17 other institutions of higher learning, 18 secondary and primary schools, 11 hospitals and 8 rural health centres<sup>16</sup>.

Presently Malaysia has 23 Medical Schools. Out of which 11 are government Medical Schools. Recently the concept of complementary medicine earned popularity with a first college of its kind in Malaysia already came up in historical city of Melaka.

Apart from its own establishment foreign universities also establish its medical school in Malaysia. These include Monash University Melbourne, Australia, Newcastle University UK, Johns Hopkins University School of Medicine (Perdana University Graduate School of Medicine, 2010). The last one is the first American-style graduate medical school in Malaysia. In Malaysia outcome based educational approach in Medicine is currently only adopted in different medical schools but one of the pioneers is International Medical University (IMUD)<sup>17</sup>. The integrated curriculum of basic medical sciences and clinical skills at the Universiti Malaysia Sabah School of Medicine, established in 2003, was tailored for the local community of Sabah<sup>18</sup>. The medical school of Universiti Malaysia Sarawak adopted a PBL, integrated, community-based curriculum that reflects the specific health care needs of the people of Sarawak. For example, doctors have to be familiar

with and sensitive to the beliefs and cultural practices of the 26 ethnic groups in Sarawak<sup>19</sup>.

Despite different medical school established in Malaysia lots of journals pertaining to medical education have been published. The Education in Medicine Journal (EIMJ) published its first publication on December 2009<sup>20</sup>. Other journals include International medical Journal Malaysia, Medical Journal of Malaysia, which is a publication of Malaysia Medical Association (MMA) etc.

The Malaysia qualification agency has strict criteria on the quality maintenance of the higher education institutions. It has got a rating system of the higher education institutions including Medical schools<sup>21</sup>

### **Conclusion**

In the context of changing medical education system, South East Asia is also adopting up to date medical curriculum for the medical students in these countries. But economic constrain, population burden, and natural disaster are major obstacle in the health care system. Fortunately all these medical schools are adopting modern methods of curriculum as far as possible. Still there are rooms to improve these curriculums as these countries have lots of "teaching material" which includes many numbers of varieties of patients, cases of infectious diseases etc. Rapid changes in curriculum with special focus on research these schools likely to become a hub of 'educational tourist'.

### **References**

1. Majumder A, D'Souza U, Rahman S. Trends in medical education: Challenges and directions for need-based reforms of medical training in South-East Asia. *Indian Journal of Medical Sciences* 2004; **58**: 369-80. PMID:15470278.
2. Abeykoon P, Mattock N. Medical Education in South-East Asia New Delhi: Regional Office for South-East Asia, World Health Organisation, 1996.
3. Majumder MA. Today's student tomorrow's physician: Emerging challenges for undergraduate medical education. *Bangladesh Medical Journal* 2003; **32**:84-7.
4. Majumder MA. Medical Education in Bangladesh: Past Successes, Future Challenges. *Bangladesh Medical Journal* 2003; **32**:37-9.
5. GMC. Tomorrow's Doctors. Recommendations on Undergraduate Medical Curriculum. London: General Medical Council, 1993.
6. McManus IC, Richards P, Winder BC. Clinical experience of UK medical students. *Lancet* 1998; **351**: 802-3. [http://dx.doi.org/10.1016/S0140-6736\(05\)78929-7](http://dx.doi.org/10.1016/S0140-6736(05)78929-7).
7. Lowry S. What's wrong with medical education in Britain? *British Medical Journal* 1992; **305**:1277-80. <http://dx.doi.org/10.1136/bmj.305.6864.1277>. PMID:1477575. PMCID:1883720.
8. Jolly BC, MacDonald MM. Education for practice: the role of practical experience in undergraduate and general clinical training. *Medical Education*. 1989; **23**:189-95. <http://dx.doi.org/10.1111/j.1365-2923.1989.tb00885.x>. PMID:2716558.
9. Jason H. The importance - and limits - of best evidence medical education. *Education for Health* 2000;

- 13:9-13. <http://dx.doi.org/10.1080/135762800110529>. PMID:2308287.
10. Lagasse P, ed. Columbia Encyclopaedia. 6th Ed. New York, NY: Columbia University Press; 2007.
  11. Viriyavejakul A. South-East Asia - The development of medical education, Indonesian faculties, Malaysia and Singapore, Training programs, Postgraduate education. [www.jrank.org/health/pages/33544/South-East-Asia.html#ixzz1QfZK3Nj5](http://www.jrank.org/health/pages/33544/South-East-Asia.html#ixzz1QfZK3Nj5) (Accessed on 04/10/2010).
  12. Azer SA. Medical education at the crossroads: Which way forward? *Annals of Saudi Medicine* 2007; **27**: 153-7. <http://dx.doi.org/10.4103/0256-4947.51503>. PMID:17568174.
  13. Khoo HE, Chhem RK, Gwee MCE, Balasubramaniam PB. Introduction of problem-based learning in a traditional medical curriculum in Singapore-Students' and tutors' perspectives. *Annals Academy of Medicine* 2001; **30**:370-374.
  14. World Health Organization. Technical Report Series No. 746. Community-based Education of Health Personnel. Report of a WHO Study Group. Geneva, Switzerland: World Health Organization. 1987.
  15. Kristin S. Malaysia Medical Colleges. eHow. 2010. Available: [http://www.ehow.com/list\\_6293245\\_malaysia-medical-colleges.html](http://www.ehow.com/list_6293245_malaysia-medical-colleges.html) (Accessed on 04/10/2010).
  16. Malaysiaeducationguide. Melaka Manipal Medical College. Available: <http://www.malaysiaeducationguide.com/melaka.htm> (Accessed on 04/10/2010).
  17. Ramesh JC, Radhakrishnan A, Nurjahan MI, Khuzaiyah RA, Chen PC. Experience of developing an outcome-based curriculum at the International Medical University, Malaysia. *Jap Med Educ Today* [online] 2004. Available: [www.medic.umin.ac.jp/jmet/Outcomespub.pdf](http://www.medic.umin.ac.jp/jmet/Outcomespub.pdf) (Accessed June 27/06/2011).
  18. Ramasamy P, Osman A. The medical school curriculum at University Malaysia Sabah. *Med J Malaysia* 2005; **60**: 56-65.
  19. Malik AS, Malik RH. Core curriculum and special study modules at the Faculty of Medicine and Health Sciences, Universiti Malaysia Sarawak. *Educ Health (Abingdon)*. 2004; **17**: 292-302. <http://dx.doi.org/10.1080/13576280400002452>. PMID:2308287.
  20. Yusoff MSB, Rahim AFA. Welcome to the Education in Medicine Journal (EIMJ). *Education in Medicine Journal* 2010; **2** (1): e1. <http://dx.doi.org/10.5959/eimj.2.1.2010.e1>. Malaysia qualification agency -A available: [http://www.mqa.gov.my/SETARA09/pdf/result\\_en.pdf](http://www.mqa.gov.my/SETARA09/pdf/result_en.pdf) accessed on 27/06/2011
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