

CHAPTER-III

MEDICAL EDUCATION SYSTEM IN INDIA

3.1 Introduction:

Education in ancient India always played a vital role in the upliftment of a society. There are several number of literatures that offer references about education system of the ancient societies. The Mahabharata, some of the Dharma sutras particularly those of Gautama Buddha and Apastamba and the Manu Smruti are the principle works dealing with the system of education in ancient India. The term 'Upanayana' literally means taking knowledge. By this ceremony, boys of the three upper classes namely Brahmins, Kshatriyas and Vaishya were taken to the preceptor, and thus initiated the Vedic study. The age limit for this purpose, ranged between 5 and 16 for Brahmins, 6 and 12 for Kshatriyas, and 8 and 24 for Vaishya. The boys so initiated the study had to live at the preceptor's house. The service of the preceptor was a bounden duty of the pupil. The student was to beg alms and survive on what the preceptor apportioned to him.

3.2 Ancient Medical Education:

In ancient times the Atharvaveda also contained prescription of herbs for various ailments. The use of herbs to treat ailments would later formed a large part of Ayurveda. The medical knowledge was firstly written by Charak and Sushruta. India is well known country in the world for Aayurvedic Theraphy treatment. Sushruta and Samhita are well known as Ayurveda Acharya. They wrote some of the good Ayurvedic books . In ancient time, Takshashila University was famous for health education in the world .This University was established in India but students from other countries studied in this University.

3.3 Medical Education before 1947:

In British Raj, army soldiers needed medical treatment but that time medical facilities were not available in India. So, British Raj decided that native youth must be trained. The posts are dressers , nurses and compounders. These native youth got trained doctors called native doctors. That time British Governor Bent ink came to India and he decided to establish medical education system in India. So, on 20th January, 1835, he established a native medical institution in Calcutta which was the

teaching institution India, and soon Governor General's order of 1835 also declared that new medical colleges should be established for the institutions of certain number of Indian youths in the various branches of medical sciences. Thus India's First medical college was started by British Government in Kolkata in 1835. Soon Medical College in Madras and Grant Medical college in Mumbai started. Medical college in Bengal was the first institution in India imparting a systematic in the education in western medicine. The British East India Company had established the Indian medical services as early as 1764 to 1804 after Europe in India. IMMS officers headed military and civilian hospitals in Bombay, Calcutta and Madras, and also accompanied the company's ships and army. The first batch of fifty students was passed out.

Madras Medical College was opened on the last day of June 1835, for training subordinates for the medical services in the army. The first batch of eleven locals and ten Eurasians were admitted for a four year course at this institution and the qualified the Eurasians were employed as apothecaries and the local were designated as the dressers in the army. In 1835, the school was opened to civilians but the prejudices against western medicine ran so tough at that time that for eight years no civilian came forward to register. Finally, it was decided to conduct three different courses one for physicians extending over a period of five years, another apothecary for a period of over four years and third for training dressers for over three years. The medical students after qualifying were awarded a diploma or graduate in medicine. With all this happening in Madras and Calcutta, it was not long before a medical college was founded in Bombay. The foundation stone of the Grant medical college was laid by the Lord Bishop of Calcutta on 30 March 1843 and college was formally opened by the Governor of Bombay, Sir George Arthur on November 1845. In 1857, the college was affiliated to university of Bombay, which had just been founded. More and more medical schools opened and by 1900 there were seventeen such schools and colleges where training in modern medicine was being imparted. In 1916, the Lady Harding medical college exclusively for training of female physicians was opened in New Delhi and it remains the only institution of its kind in India.

3.4 Medical Education Systems after 1947:

In 1947, when India achieved its independence, there were only fifteen medical colleges are established and that time total student intake was 1000. The

diploma medical schools have been gradually upgraded to degree colleges which are affiliated to various universities. Today, in more than 250 medical colleges, post-graduation training is given and special institutes for post graduate training and research in medical sciences are being established throughout the country. To begin with, the All India Institute of Medical Science was established in New Delhi in 1956 as an autonomous institution of national importance under an act of the parliament. Since it was realized by the authorities that institution like this can be developed in status and fulfill its responsibilities by itself only in an atmosphere of freedom. The most important goal of this institute in undergraduate medical education was to evolve patterns of education that would facilitate the practice of scientific medicine of the highest quality under existing condition in India, and students should meet the need of the immediate future. In the field of postgraduate education, the most essential function of the institution was to provide opportunities for training teachers for the medical colleges in India in an atmosphere of research and development. The health survey and development committee in 1956 recommended an establishment of six more such institutions of post graduate medical education and research. Institutes of Calcutta, Chandigarh and Pondicherry are now in the process of development, and more are planned. As early as the 1843 the Royal College of surgeons of England recognized the three medical degrees awarded by their respective Universities and were registered by the General Medical Council of the United Kingdom. Thus, until 1933, when the Medical Council of India was constituted, medical education developed under the direct and general supervision of the General Medical Council and the standard of the medical education in India. The Medical council of India was vested with powers similar to those enjoyed by the general Medical Council in the United Kingdom and had provincial council under its jurisdiction which maintained provincial registers and handled matters of discipline. The chief responsibility of the medical council of India was to maintain uniform minimum standards of university medical education in India. And to further the recognition abroad of the degrees awarded by the Indian Universities. The watchword of the medical council was "efficiency at home and honor abroad." The council was empowered to recommend to the Government of India recognition of various medical institutions, whether under the control of university or of any other autonomous body which, in its opinion, conferred medical degrees or diplomas of standard considered satisfactory by the council. The council was authorized to call for any information from medical

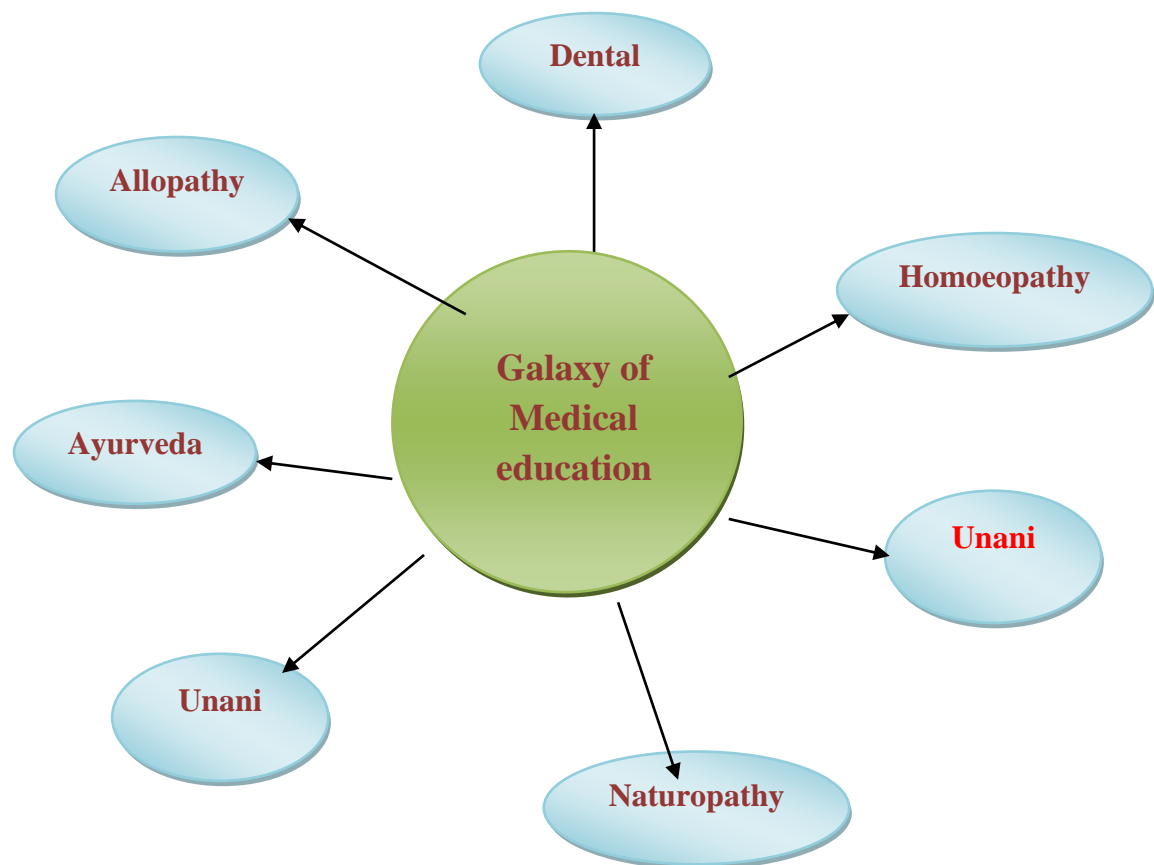
institutions and to send its inspectors or visitors to the institutions to report on the manner in which it was run, on the quality of training and on the standard of examination conducted by the affiliated university. On the basis of such reports, the council evaluated the nature and quality given at a particular medical centre, and accordingly, sent its recommendation to the government regarding the advisability of recognizing the medical qualification awarded by the university concerned. Soon after the transfer of power, the parliament of India enacted further legislation which created nursing, dental and pharmacy council on the same pattern with amazing advances in Biology, Physics and Chemistry and the increased need for specialization in the medical sciences during recent times, the government of India felt that premedical and medical education needed critical evaluation and revision, in keeping with advances elsewhere and particular requirements of the country. With the view in mind, the Government organized the first medical education conference in Autumn, in 1955, which in particular, considered the proceedings of the world's medical education conference with special references to the country's needs, and recommended major reforms in medical education in India. The conference conducted exhaustive discussions on premedical education, the selection of students and their entrance requirements; the content of medical courses and the curricular hours, the techniques of assessment and examination; the establishment of fulltime teaching departments, the creation of departments of social and preventive medicine, psychological medicine and statistics; the training and selection of medical teachers, conditions of their services etc. Many of the recommendation of this conference have been generally accepted by the government but unfortunately, are far from being implemented. The direct outcome of this conference, however, was that fresh legislation on medical education was enacted by the parliament in 1956, which repelled the Indian medical council act of 1933 and gave more powers to the Medical Council.

The medical and health related activities such as medical education, dental education, nursing education, the training of certain types of public health personnel's, pharmaceutical education, training of technicians, training of hospital social workers training in preventive and social medicine for physicians were carried out as part of medical education in India.

3.5 Types of Medical Education:

In India medical treatment and medical education started from Rushi-Muni. They had enough knowledge about medical treatment. In India, seven types of pathy are available. The Ayuurveda is the oldest pathy in India. Treatment and education of this pathy is in practice from Rushi- Muni age. Every medical therapy has its own system of treating patients. Thus, in India there are seven types of pathy.

Seven types of pathy in India:



Seven types of pathy in India:

3.5.1 Allopathy:

Allopathic means to study about the whole human body and diseases. This system is well developed and it is accepted all over the world. According to this system, millions of people save their lives. Allopathy is that system of medical practice which

aims to combat disease by the use of remedies which produce effects different from those produced by the special remedies.

3.5.2 Dental:

This pathy is related only to dental diseases and dental education. Its method gives whole information and how control diseases pertains to the teeth

3.5.3 Ayurveda:

The Ayurvedic treatment is one of the oldest methods in the world. This system has been in practice since around 7000 years.

3.5.4 Unani:

Unani medicine and Unani education both are traditional ones. This education is spread all over India. It is very close to Ayurveda. Both of them present their views on the theory of the elements in the human body

3.5.5 Homeopathy:

The homeopathy system was very popular system in India which was developed by Samuel Hahnemann and it was in use in India during the period of Mahabharata before 3500 year ago.

3.5.6 Naturopathy:

These systems treat the patient without any internal or external medicine. Naturopathy uses the power of water, air, earth, sunlight etc to accelerate the healing power of nature. The use of natural elements can cure disease by encouraging the dormant and healing power of nature.

3.5.7 Yoga Therapy:

Yoga therapy relies on the practice of yoga postures, mudras, bandhas, Pranayama, massage, sentient diet and other do's and don'ts of healthy living habits. These help a person to utilize the curing capabilities inherent in the human body. The treatment modalities may be placed in two categories:

3.6 Continues of Medical Education:

3.6.1 The World Health Organization:

The world health organization arranged expert Committee for develop medical education in 1952, stressed the relationship between the basic and clinical sciences and the necessity for internship after completion of the formal course.

3.6.2 The First World Medical Education Conference in London:

The first medical education conference was organized in London, in August 1953. It reviewed the requirements of entry into medical schools, the aim and content of the medical curriculum, the technique and method of education, and the importance of preventive and social medicine in the training of physicians. The Southeast Asia Regional Office of the W.H.O., in their analytical study of Medical Education, recommended the reorientation of medical teaching from the predominantly individual and curative approach to a more community-minded and a preventive one.

3.6.3 The First Medical Education Conference in India:

The first Medical Education Conference organized by the Government of India in 1955, after the World Medical Education Conference, recommended major reforms in medical education in India. This Conference made several suggestions in regard to selection of students, entrance qualifications including premedical studies, curriculum of medical education, examinations, fulltime teaching units, and so on. The Medical Education Conference agreed that the present methods of examinations and assessment were unsatisfactory, that written examinations required considerable modification and that great importance should be given to the day-to-day assessment of the students during their medical course. The Indian Public Health Association was formed in 1956 with the main objective of "promotion and advancement of public health and allied sciences in their different branches in India, protection and promotion of public and personal health of the people of the country and promotion of co-operation and fellowship among the members of the Association." This association solicited membership from different cadres of public health professionals across the country.

3.6.4 The Mudaliar Committee:

In 1974, this committee was organized under Dr. Mudaliar. The committee recommended every state to have school of public health and trained medical officers

public health nurses, maternity and child welfare workers, public health engineers and sanitarians, dieticians, epidemiologists, nutrition workers, meteorologist , and field workers.

3.6.5 The Shrivastava committee:

This committee was organized in 1975 to plain medical education adequately for the future. The committee stated that the role of the general practitioner is far from the treatment of sickness and the prevention of disease, but it extends to include the social and cultural problems that contribute to the fabric of health. It went on to recommend the content, structure, and processes of change in order to meet the changing requirements of the medical education across the country.

3.6.6 The Medical Education Review Committee:

The Medical Education of Review Committee was organized in 1983. The committee gave suggestions for medical education set up for under graduates and post graduates and played medical education a vital role related to develop the quality and values of medical education.

3.6.7 The Bajaj committee:

The Bajaj committee is arranged in 1987 which suggested remedial measures consequent to a dichotomous growth of health services and manpower, thereby affecting the planning, production, and management of allied health professionals. It provided an assessment of existing requirements and projected national health manpower requirements for primary and the intermediate level health care programs. It also recommended the essential educational institutions their and facilities to facilitate the availability of appropriate categories of health man power.

3.6.8 The expert committee:

The expert committee was set up in 1996. The committee recommended a need to open new schools of public health. They wanted public health school, trained professionals and paraprofessionals. The existing public health schools needed also to be appropriately strengthened. So, the committee recommended four more regional schools of public health to be set up in Central, Northern, Western, and Southern parts of India.

3.6.9 The Task Force on Medical Education:

The task force on medical education was set up in 2005 with the context of an increased sense of urgency in contextualizing the medical education to the National Rural Health Mission (NRHM). The Task Force on Medical Education for the NRHM has recommended reformative and remedial actions in medical education and health manpower development:

3.7 Present Status of Medical Education:

1) Total Under-graduate medical colleges in India:

Sr. No.	Types of colleges	No. of medical colleges	No. of Seats
1.	Government medical college	181	24610
2.	Private medical college	214	24920
3.	Degree in community medicine seats		742
4.	Diploma in Public health seats		140
	Total medical colleges	395	50412

2) Total Post-graduate medical colleges in India:

Sr. No.	Types of colleges	No. of seats
1.	Government medical college seats	13913
2.	Private medical college seats	8387
	Total seats	22300

3) Selection of students:

National eligibility entrance test are essential for undergraduate Postgraduate student.

4) Curriculum Structure:

Undergraduate courses:-

Three phase framework

- 1) Preclinical first MBBS 12 months
- 2) Para clinical Second MBBS 18 months
- 3) Clinical or third MBBS 24 months

5) Post graduate medical courses:

- 1) Three years course for MD/MS

6) Post graduate curriculum:

- 1) Theoretical knowledge
- 2) practical and skills
- 3) Dissertation
- 4) Communication skills
- 5) Training in research methodology

7) Degree / Diploma training also includes:

Proper training in basic medical sciences related to the discipline concerned, training in applied aspects of the subjects.

8) **Ranking of top ten medical colleges in India 2013 -2014:**

Sr.No.	Name Colleges	City
1.	AIIMS – All India Institute of Medical Sciences	Delhi
2.	CMC – Christian Medical College	Vellore
3.	AFMC -Armed Forces Medical College	Pune
4.	Jawaharlal Institute of postgraduate Medical Education in India	Pondicherry
5.	Seth G.S. Medical College	Mumbai
6.	Maulana Azad Medical College	Delhi
7.	Grants Medical College	Mumbai
8.	St John’s medical college	Bangalore
9.	Kasturba Medical College	Manipal
10.	B.J. Medical College	Pune

Summary:

Medical education was given by Rushis and Munis Some books on medical education were written by Charka and Sushruta also. India is well known country in the world for Ayurveda Therapy treatment. Sushruta and Samhita are well known as Ayurveda Acharya. They wrote some of the good Ayurveda books. In ancient time, Takshashila University was famous for health education in the world .This University was established in India but students from other countries studied in this University Modern medical education system was established in Madras, Kolkata and Mumbai at 1835 by British governments. After independence of India 15 allopathic medical colleges, 1991 to 2000 that period 7 medical colleges and 2000 to 2010 that period 5 medical colleges are established in Maharashtra.

Today all over all over India 395 medical colleges are established, as well as 42 medical college are established alone in Maharashtra.

So medical sciences has necessary to develop medical libraries by new technique and new management.

REFERENCES

1. A. Bell (1983). – Roles for the library information management health sciences personnel and academic information system: user requirements. Bull. Med. Libr. Asso. Oct. :71(4):420-422
2. Charles Donald O'Malley – (1970) : ‘The history of medical education.’ An International Symposium, volumes 673- page –(Google books results).
3. Dada Shambhushivananda, Dr. Jitendra: ‘Composite Medical Pathies – A Need of the Hour’
4. Dr. Manohar Ganapati Shinde (2012) : Information Services For Medical education.
5. Inamdar, S. C., & Rotti, S.B. (2004): Computer use among medical students in an institution in Southern India. National Medical Journal of India 17 (1):8-10.
6. James A. Curtis. (2010) – Introduction: The Association of academic health Sciences Libraries Symposium. J. Med. Lib. Asso. 98(3):204-205.
7. Kamat K .A - Role of special libraries in a national system Indian libraries Trends and respective edited by K.,M , Calcutta .
8. Kathel Dunn, Karen Brewer and Joanne Gard Marshal (2009) – Measuring the value and impact of health science libraries: Planning and update and replication of the Rochester study. J. Med. Libr .Asso. Oct. 97(4):308-312.
9. Katogi (1994)-The genesis of National Diet: Herald of Library science, Tokyo, Japan.
10. KatogiMasakatsu (1994) - National Diet Library Herald of libraryscience,-82. 1994 , 33 (3-4) 179
11. King D. N. (1987) - The Contribution of hospital library information services to clinical care : a study in eights hospitals. Bull. Med. Lib. Asso. Oct. 75(4)291-301 PMC.
12. L. A. Colaianni (1998) – Hospital librarians and the medical library Association Bull. Med. Lib. Asso. April 86(2):217-222.
13. Liu Xiao Chan and Fang Ping (2005) - The Library and the faculty of medical and information science, human medical university , Changsha, china.

14. Longman, 1985 Quoted in National policy on Library and Information system and services for India by B. P. Barua 107- 121 Bombay popular prakashan ,1992
15. Love E.1987- The science of medical librarianship: investing in the future. Bull Med Libr Assoc. Oct;75(4):302–9. [[PMC free article](#)] [[PubMed](#)].
16. M. Gopal Nandkumar H.Keshwani (2010) : ‘All India Institute of Medical Sciences Institute of Medical Sciences.’
17. M. P. Satija, Dr. Sar BrinderKaur, (2009)- Consortia and cooperative collection development in the libraries of technology institutes of north India .
18. Maharana B, Biswal, S., &Sahu, N.K. (2009) Use of information and communication technology by medical students: A survey of VSS Medical College, Burla, India. Library, Philosophy and Practice. Available: <http://unllib.unl.edu/LPP/maharana-biswal-ahu.htm>
19. Manish Nair(2010) : Medical education review ; Education for health professional in the emerging market economics ;literature review vol .44, issue 49, page 856-863
20. Mathews, D.A, W.H.O (1988) :Information and education in South East Asia in SEAR regional health paper no. 17, New Delhi, P.1.
21. Mc Lean R., Mendisk, Harris B., Lanalese J: (2007) –Retrospective Bibliometric Review of rural health research- Australia’s Contribution and other trends. J. Med. Lib. Asso. Oct-Dec. 7(4):767(Pub-2007 No. -14)
22. Medical Library Association (1997) Shaping the future: The strategic plan of the medical library Association MLA New . 196(Suppl): s1-s16.
23. Medical Library Association. (2007) – The research imperative : The research policy statement of the medical library association, Chicago, IL: The Association ; [cited 13 Aug 2008] <Http://www.mlanet.org/research/policy/policy.1>
24. Medical Library Association. MLA 2007-Membership survey: results overview [Internet] Chicago, IL: The Association; [cited 22 Sep 2003]. http://www.mlanet.org/survey/mla_2007_mbr_survey_results_main.pdf.
25. Medical Library Association.(1995) - Using scientific evidence to improve information practice: the research policy statement of the Medical Library Association Chicago, IL: The Association; [cited 13 Aug 2008]. <http://www.mlanet.org/research/science1.html>>.

26. Medical Library Association.(2007) - The research imperative: The research policy statement of the Medical Library Association. Appendix 1: MLA research milestones: 1995–2007 [Internet] Chicago, IL: The Association; [cited 13 Aug 2008]. <<http://www.mlanet.org/research/policy/policy-09.html>>
27. Mine, Mark; Bowers (2006)– University of Washing on health sciences library bio commons: id:jo 192860, vol.94 page 321, stat journal Article
28. Mohammad Azzim Siddiqui (2007) -A survey of collection and services of medical college libraries in Uttar Pradesh .<http://EnzineArticles.com/expert=Dr.Mohamad Azeem Siddiqui>
29. Nomma (1994) Information services in national diet library 33 (3-4) 179- 82
30. Nour M.M.(1985) - A quantitative analysis of the research articles published in core library journals of Libr Inform Sci Res. Jul–Sep;7(3):261–73.
31. Nurjana, M. I., Lim, T. A., Yeong, S. W., Foong, A. L., & Ware, J. (2002). Utilization of information technology in medical education: A questionnaire survey of students in a Malaysian institution .*Medical Journal of Malaysia* 57 (Suppl E):58-56.
32. Nurnzia B. Giuse, Relbecca N. Jerome, (2008)- Reflection on the Journals Library Association. *J. Med. Libr. Asso.* Oct. 96(4):285.286.
33. Pal S. S. (2004) - Special library system and information services. Icon publishing pvt Ltd , p 1-8
34. Parry G. L., Roderer N. K. (2005) – Review of A Current Perspective on Medical Informatics and Health Sciences Librarianship *Med. Lib. Asso.* April 93(2):199-205.
35. Pathan, Abdulmajid Mahboobkhan(1991) - The development and the management of Health sciences library Network of the state of Karnataka, Dharwad University, India.
36. Pathan, M.K:1977): Budget and Document procurement in medical libraries of India, *International Library Review*, 9, p.431& 439.
37. Press, Nancy Ottman, Sahali, (2003):– Program management and policy issues in information outreach: id JO192858, Vol. 17, page -1 *STAT Journal Article*.
38. Ram Nath, Dr. RajendraK. Sharama (1996) 1st edition, Medical education Reference to medical science are found in scripture. Good deal in Buddhist.