A Historical Perspective of Medical Education

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Abstract

Even though there are significant developments in recent years in medical education, physicians are still needed reform and innovation in order to prepare the information society. The spots in the forefront of medical education in recent years; holistic approach in all processes, including health education, evidence-based medicine and professionalism. Medical education; undergraduate, postgraduate and continuing medical education covering the period varies from country to country for the duration of this period. Increasing day pursuing the importance of medical education and student-centered education and is spread across the country as well as in blended learning model that includes educational centered education. Medical faculty, students and teaching staff should be informed about innovations and developments should offer opportunities for that matter, should support administrative and economic necessarily.

Key words: Medical education, Blended learning model, Holistic approach.

Introduction

There have been efforts to improve the quality of medical education since the early 1980s. In this process, the Edinburgh Declaration (1988) and Recommendations of World Summit on Medical Education (1993) have constituted a milestone (Global Standards). In the Edinburgh Declaration, the purpose of medical education is defined as training physicians that work for the improvement of health of all individuals. It is expected that physicians are trained as careful listeners and observers, sensitive communication experts and effective clinicians. The faculties of medicine have been increasing in number; however, some of these faculties lack a clear mission statement, sufficient funding and sufficient clinical education and research opportunities. Although significant progress has been achieved in medical education in recent years, there is still room for reforms and innovations to prepare physicians for the information society. (*Türk Tabipleri Birliği Mezuniyet Öncesi Tıp Eğitimi Raporu – 2010*).

A Short History of Medical Education

Medical education is roughly divided into three periods:
1) Period before Flexner (until 1910), which was based on master-apprentice model,
2) Flexner period (1910-1970), during which biomedical approaches prevailed in education,
3) Society-centered medical education.

Flexner argued that the master-apprentice model failed to train qualified physicians and that there was a need for greater emphasis on science in medical education (Flexner, A,2002; Aytekin NT, 2002) For him, discipline-based approach was more appropriate given that increasing information load and health problems were increasing; and all stages of education should be offered in classes, laboratories and faculty of medicine hospitals, i.e. institutions of tertiary healthcare services (Magzoub M, *2000;* Schmidt H, *2000).* In society-based education, students have the chance to encounter cases of health problems from the first year of education, which enable them to handle the problems they will encounter more comfortably owing to past experience (Schmidt H, 2000; *Maastricht: Network Publications; 2000)*

The Aim of Pre-Graduation Medical Education

In recent years, the highlights in medical education are holistic approach, evidence-based medicine and professionalism in all stages of healthcare including education. In this respect, during six years of medical education, the aim is to train physicians that:

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- adopt "*a holistic (bio, psycho, social and cultural) approach*" in all procedures related to healthcare,
- have developed identity and awareness of the profession of medicine from the perspective of medical history; perform the profession of medicine based not only on techniques and scientific foundations and evidence but also on evidence in line with "**humanistic and professional values (professionalism)**",
- have developed competency of "**reflective thinking and practice**", and hence are open to "**continuous professional and personal development**", being aware of their individual and professional roles, qualifications, potentials, restrictions, responsibilities and rights,
- prioritize "**individual and social benefit**" with the aim of "**protecting and improving the health of individuals and the society**" in line with national and international health systems and policies and all organizational and administrative processes related to health.

In other words, the aim of medical programs is to train physicians equipped with the competencies listed under three categories in the National Competencies Framework, i.e. medical practices, critical and scientific thinking and approaches, and professionalism (*Mezuniyet Öncesi Tıp Eğitimi ULUSAL ÇEP(Çekirdek Eğitim Programı), 2014*).

Period of Medical Education

In the faculty of medicine, the period of education is six years, each of which covers an academic year (Ege Üniversitesi Tıp Fakültesi Entegre Eğitim-Öğretim Yönergesi,2013). Although the period of medical education varies from one country to another, it covers three stages in all countries, i.e. pre-graduation, post-graduation and lifelong medical education. The internship period is included in regular period of education in some countries and requires extra one year or eighteen months in some other countries. In Belgium, one of the European Union countries, the period of medical education is seven and a half years: three and a half years for medical sciences, two years for pre-clinical studies and final two years for clinical sciences. In Germany, medical education is completed in six years: three years for basic sciences, two years for clinical sciences and one year for medical practice. In the Netherlands, medical education requires six years, i.e. four years for pre-clinical studies and two years for clinical studies (Leinster S, 2003; Özdemir ST, 2005).

Content of Medical Education

Three Main Categories of Content in Pre-graduation Medical Education:
Faculties should design the content of pre-graduation medical education in a way to cover and integrate the following three fields:
a) **Educational content related to medical practices and professional skills:** The faculties offer the relevant educational content in consideration of basic medical practices and level of learning they determine in the framework of Core Educational Program.
b) **Educational content related to information on medicine as a science:** The scientific basis and information content fall under the following three categories in the field of medicine. The medical education programs developed by faculties are required to cover these three categories:
    - **Basic sciences:** Basic sciences on which medical education is grounded (*genetics, anatomy, embryology, physiology, biochemistry, etc.*) and medicine-related content of these sciences,
    - **Clinical sciences:** Clinical sciences covered in medical education (*pathology, clinical pharmacology, public health, epidemiology, clinical microbiology/infection control, immunology, internal and surgical sciences, etc.*) and the content of these sciences,
    - **Behavioral sciences and social sciences:** Content of research planning and biostatistics, psychology, sociology, anthropology, health management, etc. related to healthcare.
c) **Educational content related to professional codes, values and professionalism:** The third main component of a qualified medical education is professionalism (*humanist, social and professional values*). The faculties of medicine are first required to define the competencies and then design the educational content according to particularly professional competencies. There is a need to integrate the relevant content to the whole education process. Some of the components of educational content related to professionalism are as follows:
    - Communication skills, interpersonal relations and teamwork,
    - Ethical and professional values and responsibilities,
    - Humanist, social and cultural values and responsibilities,
    - Reflective practices and continuous development,

- Health systems and policies, management and society-centered medicine,
- Education and counseling (*Mezuniyet Öncesi Tıp Eğitimi Ulusal Çekirdek Eğitim Programı (ÇEP),2014*) .

Educational Models in Faculties of Medicine

In Turkey, out of 54 faculties of medicine, 34 (60.7%) adopt the mixed model, 18 (32.1%) adopt teacher-centered education model and 4 (7.1%) adopt student-centered education model. With regard to curriculum, 47 (83.9%) faculties use a system-based (integrated), 5 (8.9%) discipline-based (classical), 3 (5.3%) problem-based and 1 (1.7%) integrated and classical curriculum models. Problem-based education constitutes less than 10% of curricular activities in 30 faculties and 10% to 25% of curricular activities in 8 faculties (*Türk Tabipleri Birliği Mezuniyet Öncesi Tıp eğitimi Raporu, 2010)*. There is a program in medical education in 33 faculties, and it is planned to establish a program in medical education in 15 faculties (*Türk Tabipleri Birliği Mezuniyet Öncesi Tıp eğitimi Raporu, 2010*).

Conclusion

The faculties of education are expected to define and update their institutional objectives and targets related to education, research and service in consideration of changes in diagnosis and treatment methods as well as in the provision of healthcare services (*Mezuniyet Öncesi Tıp Eğitimi Ulusal Standartları,2014)*. Teaching and assessment methods used in medical education should be planned in a way to support learning skills and lifelong learning motivation of students. There is a need for activities where student can use the skills they acquire, evaluation of performances and provision of feedback (*Mezuniyet Öncesi Tıp Eğitimi ULUSAL ÇEP(Çekirdek Eğitim Programı, 2014).* The faculties of medicine should inform their students and teaching staff about national and international mobility programs, enable them to take part in such programs and provide administrative and financial support for participation in mobility programs (*Mezuniyet Öncesi Tıp Eğitimi Ulusal Standartları, 2014*).

One of the recent issues is the place of social media in medical education. Social media potentially allows active learning with the content designed by educators and encourages interaction. The flexibility of online instruments enables the customization of content according to personal needs of students (Geyer EM, 2008) *Isolated to integrated:An evolving medical informatics curriculum. Med Ref Serv Q. 2008;27:451–461).* The use of social media in education is a developing field about which further studies are required. Teachers have difficulty in getting adapted to the use of social media in education; however, it is clear that social media has positive effects on education (17). (Cheston, CC*, 2013).*

References

Aytekin NT. (*2002) Topluma Yönelik – Topluma Dayalı Tıp Eğitimi. Uludağ Üniversitesi Tıp Fakültesi Dergisi 2002:28 (2): 53-56*

Cheston, Christine C., Tabor E. Flickinger, and Margaret S. Chisolm. (2013) *"Social media use in medical education: a systematic review." Academic Medicine, 2013: 893-901.*

Ege Üniversitesi Tıp Fakültesi Entegre Eğitim-Öğretim Yönergesi. (2013). Site adresi: http://www.med.ege.edu.tr/files/entegre25haziran2013.pdf

Flexner, A. (*2002) Medical education in the United States and Canada.Bulletin of the World Health Organisation 2002; 7: 594 – 602.*

Geyer EM, Irish DE. (2008) *Isolated to integrated:An evolving medical informatics curriculum. Med Ref Serv Q. 2008;27:451–461.*

Leinster S. (2003) *Standards in medical education in the European Union. Medical Teacher 2003; 25:507-9.*

Magzoub M, Schmidt H. (2000) *Some principles involved in community – based education.* In: Schmidt H, Magzoub M, Feletti G, Nooman Z, Vluggen P (eds). *Handbook of Community Oriented Education: Theory and Practices. Maastricht: Network Publications; 2000. 27 – 38.*

Mezuniyet Öncesi Tıp Eğitimi ULUSAL ÇEP(Çekirdek Eğitim Programı) (2014)-syf:31-32.

Mezuniyet Öncesi Tıp Eğitimi Ulusal Standartları (2014) Syf:2 http://www.uteak.org.tr/uploads/belge/MOTE_STANDARTLAR_2014.pdf

Mezuniyet Öncesi Tıp Eğitimi ULUSAL ÇEP(Çekirdek Eğitim Programı) (2014) Syf:10. Site adresi: http://www.aku.edu.tr/AKU/DosyaYonetimi/TIP/pdf/UlusalCEP2014.pdf

Mezuniyet   Öncesi   Tıp   Eğitimi   Ulusal   Standartları   (2014)   Syf:32 http://www.uteak.org.tr/uploads/belge/MOTE_STANDARTLAR_2014.pdf

Mezuniyet Öncesi Tıp Eğitimi Ulusal Çekirdek Eğitim Programı (ÇEP) Ocak (2014) syf:62,63. Site adresi: http://www.aku.edu.tr/AKU/DosyaYonetimi/TIP/pdf/UlusalCEP2014.pdf

Özdemir ST. (2005) *Tıp Eğitimi ve Standartlar. Uludağ Üniversitesi Tıp Fakültesi Dergisi 2005:31 (2) 133-137*

Schmidt H, Magzoub M, Feletti G, Nooman Z, Vluggen P. Handbook of Community (*2000*)– *Based Education: Theory and Pactices. (Preface).Maastricht: Network Publications; 2000.7-9*

Türk Tabipleri Birliği Mezuniyet Öncesi Tıp Eğitimi Raporu – 2010 syf:7.

Türk   Tabipleri   Birliği   Mezuniyet   Öncesi   Tıp   Eğitimi   Raporu   (2010) Site   adresi: http://www.ttb.org.tr/kutuphane/mote_2010.pdf

Türk   Tabipleri   Birliği   Mezuniyet   Öncesi   Tıp   Eğitimi   Raporu   (2010)   Syf:71. Site adresi: http://www.ttb.org.tr/kutuphane/mote_2010.pdf