Pharmacy History Courses in Current Turkish Pharmacy Education

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1. Introduction
Pharmacy History courses have special importance in today’s pharmacy education. In addition to getting to know their profession better, students also have an opportunity to benefit from the experiences of the past, gain a different professional and intellectual perspective and understand a common heritage, strengthening their solidarity and allegiance with other colleagues.

Since a great majority of the faculties of pharmacy in Turkey do not have separate departments of pharmacy history, this course is usually taught by people with other specialties. A possible result is that huge variations exist between different faculties regarding education in the history of pharmacy. In addition, although their contents are quite different, the course is traditionally given together with pharmacy deontology and ethics under the name “History of Pharmacy and Deontology”.

In light of this, this study aims to discover the precise status of education in the history of pharmacy throughout the country, from different aspects, in a historical perspective. Moreover, the place and significance of the course in Turkish pharmacy curricula will be examined in this study.

2. Materials and Methods
A survey which was sent to all twelve faculties of pharmacy in Turkey provided the main material for the study. This survey consisted of several questions, including how much credit is given for the course, in which year/term the course is taken, what the purpose of the course is, who teaches the course, what its contents are, which references are used, etc. Furthermore, in this study the commonly used books, articles and documents related to the history of pharmacy were also reviewed.

3. Pharmacy History Courses in Current Curricula

3.1. Brief History of Pharmacy in Turkey
In Turkey, the first pharmacy class was opened at Mekteb-i Tibbiye-i Adliye-i Sahane (Military School of Medicine) in Istanbul in 1839, during the reign of the Sultan Mahmud II. It was followed by the following pharmacy schools (1,2,4,7,8): Mekteb-i Tibbiye-i Mulkiye-i Sahane (Civil School of Medicine) in Istanbul (1867), Haydarpasa Askeri Saglik Okulu in Istanbul (1876), Sam Tibbiye Okulu in Damascus (1903), and Eczaci Okulu (School of Pharmacy) in Istanbul (1909).

After the proclamation of the Republic in 1923, the aforementioned Eczaci Okulu continued to serve in several different locations. The school went on to serve under the School of Medicine until the University Reform in 1933, at which time the existing university structure was abolished and foreign academicians who had suffered from the Nazi sanctions
were invited to educate a new generation of the republic. It was during that time that the pharmacy school was first put under the Faculty of Sciences. It returned to the Faculty of Medicine in 1944. Pharmacy education lasted three years until 1938, at which time it was changed to a four-year program.

Eventually, the first faculty of pharmacy (Ankara University Faculty of Pharmacy) was established in 1960 in Ankara, and was followed shortly after by others: Istanbul University (1963), Hacettepe University (1971), Ege University (1975), Gazi University (1983), Marmara University (1983), Anadolu University (1983), Ataturk University (1997), Mersin University (2000), Inonu University (2001), Yeditepe University (2001), and Erciyes University (2003).

3.2. Pharmacy History Courses in Turkey

The first Pharmacy Deontology course was offered during the third semester of the 1938-39 academic year and met one hour per week. (3,7). It is not clear whether the course included history of pharmacy or not. However, according to the Istanbul School of Pharmacy Regulations 1945, history of pharmacy and deontology courses were taught together for two hours a week during the 7th semester. (7)

Today, all faculties of pharmacy have History of Pharmacy and Deontology courses as part of their core curricula, meeting one or two hours per week during various terms. (9) Detailed information about each university has been summarized in Table 1.

Table 1. Pharmacy History and Deontology courses in the curricula of different faculties and their lecturers

<table>
<thead>
<tr>
<th>UNIVERSITY</th>
<th>YEARS</th>
<th>TERM</th>
<th>LECTURER</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANKARA</td>
<td>1963-1980</td>
<td>5-6. midterm 1 hour/week</td>
<td>Şevket Yağtu</td>
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<tr>
<td></td>
<td>1980-1982</td>
<td>5-6. midterm 1 hour/week</td>
<td>Assoc. Prof. Dr. Eriş Asil</td>
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<tr>
<td></td>
<td>1983-1992</td>
<td>7-8. midterm 1 hour/week</td>
<td>Prof. Dr. Eriş Asil</td>
</tr>
<tr>
<td></td>
<td>1992-1997</td>
<td>7-8. midterm 1 hour/week</td>
<td>Prof. Dr. Eriş Asil</td>
</tr>
<tr>
<td></td>
<td>1997-1998</td>
<td>7-8. midterm 1 hour/week</td>
<td>Assoc. Prof. Dr. Sevgi Şar</td>
</tr>
<tr>
<td></td>
<td>1998-2004</td>
<td>7-8. midterm 1 hour/week</td>
<td>Assoc. Prof. Dr. Sevgi Şar</td>
</tr>
<tr>
<td></td>
<td>2004-2007</td>
<td>3-4. midterm 1 hour/week</td>
<td>Assoc. Prof. Dr. Sevgi Şar</td>
</tr>
<tr>
<td>İSTANBUL</td>
<td>1964-1968</td>
<td>5-6. midterm 1 hour/week</td>
<td>Prof. Dr. Bedi N. Şehsvuroğlu</td>
</tr>
<tr>
<td></td>
<td>1968-1977</td>
<td>7. midterm 2 hours/week</td>
<td>Prof. Dr. Bedi N. Şehsvuroğlu</td>
</tr>
<tr>
<td></td>
<td>1978-1982</td>
<td>7. midterm 2 hours/week</td>
<td>Prof. Dr. Emine Atabek</td>
</tr>
<tr>
<td></td>
<td>1983-1985</td>
<td>8. midterm 1 hour/week</td>
<td>Prof. Dr. Arslan Terzioglu</td>
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<tr>
<td></td>
<td>1986-1995</td>
<td>8. midterm 1 hour/week</td>
<td>Prof. Dr. O. Turhan Baytop</td>
</tr>
<tr>
<td></td>
<td>1995-1998</td>
<td>1. midterm 1 hour/week</td>
<td>Prof. Dr. Ahmet Ekinci</td>
</tr>
<tr>
<td></td>
<td>1998-1999</td>
<td>2. midterm 1 hour/week</td>
<td>Prof. Dr. Ahmet Ekinci</td>
</tr>
<tr>
<td></td>
<td>2001-2007</td>
<td>8. midterm 1 hour/week</td>
<td>Prof. Dr. Afife Mat</td>
</tr>
<tr>
<td>HACETTEPE</td>
<td>1969-1973</td>
<td>7. midterm 1 hour/week</td>
<td>Prof. Dr. Aysen Karan</td>
</tr>
<tr>
<td></td>
<td>1974-1978</td>
<td>6. midterm 1 hour/week</td>
<td>Prof. Dr. Aysen Karan</td>
</tr>
<tr>
<td></td>
<td>1979-1998</td>
<td>5. midterm 2 hours/week</td>
<td>Prof. Dr. Ismail Üstel</td>
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<tr>
<td></td>
<td>1998-1999</td>
<td>6. midterm 1 hour/week</td>
<td>Prof. Dr. Ismail Üstel</td>
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<td></td>
<td>1999-2001</td>
<td>6. midterm 1 hour/week</td>
<td>Lect. Selen Yeğenoğlu</td>
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<tr>
<td></td>
<td>2001-2002</td>
<td>6. midterm 1 hour/week</td>
<td>Prof. Dr. Erdem Aydın</td>
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<tr>
<td></td>
<td>2002-2007</td>
<td>6. midterm 1 hour/week</td>
<td>Lect. Selen Yeğenoğlu</td>
</tr>
<tr>
<td></td>
<td>1974-1976</td>
<td>7. midterm 1 hour/week</td>
<td>Prof. Dr. İsmail Ulutaş</td>
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According to the surveys, the intended purposes of the courses vary as below:

- Understanding the concept of the history of the profession,
- Gaining a new perspective on pharmaceutical issues of the past,
- Acquiring the ability to learn lessons from the history of the profession,
- Being willing to obey ethical and deontological rules,
- Acquiring the ability to solve potential ethical and deontological problems in practice.

In addition, course topics are mainly divided into four different periods: empirical, rational, medieval and scientific. The contents are as follows:
• Definitions of deontology and ethics, and their practices,
• Turkish pharmacy deontology regulations,
• Introduction to the history of pharmacy,
• Pharmacy in ancient Mesopotamia,
• Pharmacy in ancient Egypt,
• Pharmacy in ancient India,
• Pharmacy in ancient China,
• Pharmacy in ancient Greece,
• Pharmacy in ancient Rome,
• Pharmacy in Islamic period and famous physicians,
• Pharmacy in medieval Europe,
• Pharmacy in the Anatolian Seljuks,
• Pharmacy in the Ottoman Empire,
• Pharmacy in the Republic of Turkey since 1923,
• History of pharmacopoeias,
• History of pharmacy education,
• Miscellaneous facts and dates.

In some faculties, students are asked to write a research paper at the end of each term about a subject which is either assigned by their tutor or chosen by the student. These papers are usually presented in class. Although it is not very common, some tutors organize history of pharmacy museum excursions for their students.

In addition, the following books were found to be among the most used references for the course:

4. Results
The following results were obtained from this study:

1. The first History of Pharmacy course was in 1945 at the School of Pharmacy in Istanbul.
2. Today, in almost all of the twelve faculties of pharmacy in Turkey, the course is taught together with deontology, under the name: “History of Pharmacy and Deontology”. However, the name of the course was changed to “History of Pharmacy” at Marmara University Faculty of Pharmacy in 1999. At Yeditepe University Faculty of Pharmacy, the course is called “Pharmacy Deontology”.
3. Although the lecturers’ academic backgrounds and teaching materials vary greatly, the courses generally have similar contents.
4. By and large, lecturers use four main books as references: Eczacilik Tarihi (Baylav, 1968), Eczacilik Tarihi Dersleri (Sehsuvaroglu, 1970), Turk Eczacilik Tarihi (Baytop, 1985), and Eczacilik Tarihi Ders Notlari (Dölen, 1995). In addition, other miscellaneous resources are used.
5. The course is taught at Ankara University during the second year, at Hacettepe, Ege, Anadolu and Yeditepe Universities during the third year; and at Istanbul, Erciyes, Gazi, Atatürk, Marmara, Mersin and İnönü Universities in the fourth year of the five year pharmacy curricula.
6. The course generally meets one hour per week during one term. However, it meets two hours per week at Gazi, Marmara and Yeditepe Universities.
7. Despite some small differences, course content is quite similar between different faculties. The course mainly focuses on the following topics: general history of pharmacy (the separation of the profession from medicine, the progression of the profession in Europe, significant discoveries, important facts and dates, etc.), history of pharmacy during the Islamic period, and the history of pharmacy of the Anatolian Seljuks (1075-1318), the Ottoman Empire (1299-1922) and the Republic of Turkey (1923 to today).
REFERENCES

9. Related surveys, received from the faculties of pharmacy in Turkey.