

An Analysis of Gender of Space in Historical Hospitals (Dar-Al-Şifa) of Anatolia

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Abstract

The gender-space relationship in spaces of healing was influenced by medical ethics, clinical practices, as well as privacy considerations. Researchers to date have analvsed historical hospitals/dar nlshifas/darüssifas of Anatolia in terms of their architecture, planning, art history, history of medicine, and in terms of their functional systems. However, none have investigated their gendered space segregation. There are also limited studies related to gender, religion, and secularism in historical hospitals outside of Anatolia. Hence, in this paper, historical hospitals of Anatolia have been chosen as case studies and they are analysed from agendered perspective. Analyses includes how privacy, religion, culture, and gender issues shaped their architecture and planning. In the Ottoman Empire, it is known that among the palace elites, there was limited access of women patients to male doctors. Documented evidence of female attendants being employed in Ottoman hospitals belongs to later periods. In the Ottoman dynasty there were also female patrons who constructed hospitals for women and the public, demonstrating the power and status of women in the Ottoman palace. In addition, based on travelers' accounts, old drawings, gravures, and archival resources, it is understood that there were separate units for women in Anatolian hospital. Those units included the patients' rooms, wards, latrines, and even courtyards. This research shows that gender-segregated space formation is present to some extent, at least in some specific space arrangements, in Anatolian hospitals, which are areas of physical rehabilitation and medical education.

Keywords: gender, space, place, gendered architecture, segregation, historic hospitals, Anatolia, dar al-shifa.

Tarihi Anadolu Hastanelerinde (Dar-Al-Şifa) Mekânın Cinsiyetinin Analizi

Öz

Tıp etiği, klinik uygulamalar ve aynı zamanda mahremiyet kaygıları, tedavi mekânlarında cinsivet-mekân iliskisini etkilemistir. Bugüne kadar araştırmacılar tarafından Anadolu'daki tarihi hastane yapıları (dar-Al-sifa), mimari, planlama, sanat tarihi, tıp tarihi, hatta işlevsel sistemleri acısından incelenmiştir, ancak bu vapılarda cinsivete göre mekân avrısması henüz calısmamıs bir konudur. Anadolu dısındaki tarihi hastanelerde de cinsiyet, din ve sekülarizm ile ilgili sınırlı sayıda çalışma mevcuttur. Bu nedenle, bu çalışmada Anadolu'daki tarihi hastane yapıları örneklem alan çalışması olarak secilmiş ve mahremiyet, din, kültür ve cinsiyet konularının mimari ve planlamalarını nasıl sekillendirdiğine dair cinsiyet perspektifinden analiz edilmistir. Osmanlı İmparatorluğu'nda saray seçkinleri arasında kadın hastaların erkek doktorlara erişiminin sınırlı olduğu bilinmektedir. Osmanlı hastanelerinde kadın görevlilerin istihdam edildiğine dair belgelenmiş kanıtlar ise daha sonraki dönemlere aittir. Osmanlı hanedanlığında, kadınlar ve genel halk için hastaneler inşa eden kadın patronlar da vardır, bu durum Osmanlı sarayında kadınların gücünü ve statüsünü göstermektedir. Avrıca sevvahların anlatımlarına, eski cizimlere. gravürlere ve arşiv kaynaklarına dayanılarak Anadolu tarihi hastane yapılarında kadınlar için ayrı birimler olduğu anlaşılmaktadır. Bu birimler arasında hasta odaları, koğuşlar, helalar ve hatta avlular yer almaktadır. Bu araştırma, fiziki iyileştirme ve tıp eğitimi alanları olan Anadolu hastanelerinde cinsiyete göre ayrıştırılmış mekân oluşumunun, en azından bazı belirli mekân düzenlemelerinde bir dereceye kadar mevcut olduğunu göstermektedir.

Anahtar Kelimeler: cinsiyet, mekân, yer, mimarinin cinsiyeti, ayrışma, tarihi hastane, Anadolu, darüşşifa.

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Introduction

Dar al-shifas (historical hospitals) were one of the eminent social aid foundations in Turkish-Islamic waof culture. These foundations with their characteristic architectures for medical applications were established for health needs of society protected and survived their existence with their wagfs. Dar al-shifas in Anatolia were places of healing for all kind of patients and were spaces of education for medicine students. Specialists in historic hospitals have studied the issue mostly through the architectural, art history, or historical approach (Cantay, 1992; Terzioğlu, 1999; Yılmaz, 2007; Kahya ve Erdemir, 2000; Bolak, 1950; Kılıç, 2012). There are also detailed studies related to their functional systems such as heating, waste and clean water, refrigeration, ventilation, and illumination systems (Disli, 2018: 174-185; Disli & Ozcan, 2016: 183-200; Disli, 2015: 253-276; Disli, 2014: 45-51; Disli & Ozcan, 2014: 169-177; Ozcan & Disli, 2014: 1015-1021). Dengiz's (2001) unpublished master's thesis provides important knowledge on the field of gendered space in built environment, especially in Ottoman house architecture. The study deals with the boundaries of the house and its relations with the body and gaze of the women. Yet, despite their obvious significance, gender studies, gendered architecture, and gender of space in historic hospital buildings remain a relatively neglected area of research. Similarly, Green (2003, 358) asserts that in Islamic world, gender and women issues in history of medicine have hardly figured. Hence, different from the existent literature, this study looks at whether gender segregation has been applied during medical practices, namely between patient and healer relations, and whether gender was an important factor in architectural space organization of historic hospitals in Anatolia, especially in Seliuk and Ottoman periods. Thus, it is aimed to determine the very relations of architectural space and privacy considerations, various gendered architectural planning formations, and the effect of female builders in building programme of historic hospitals. Such a study, evaluating the historic hospitals within gender and space perspective, is considered important to help address the gap in literature H₁ by reporting results of archival, and historic research, as well as by means of travellers' accounts, and case study evaluations.

Materials and Methods

In this research case study approach is adopted. In total twelfe dar al-shifas both from the Seljuk and Ottoman Period in Anatolia were investigated in detail via archival and literature surveys, as well as by means of field observations conducted in 2011-2018. Four of them are from the Seljuk Period, and eight of them are from the Ottoman Period. They include Kayseri, Gevher Nesibe Dar al-shifa and Medicine Madrasah (1205-1206), Sivas, Izzeddin Keykavus I. Dar al-shifa (1217), Sivas, Divrigi Turan Melek Dar al-shifa and Mosque Complex (1228), Amasya, Anber bin Abdullah Dar al-shifa (1222-32), Bursa, Yıldırım Bayezid Dar al-shifa (1400), Istanbul, Fatih Dar al-shifa (1470), Edirne, Bayezid II. Dar al-shifa (1485), Manisa, Hafsa Sultan Dar al-shifa (1539), Istanbul, Haseki Sultan

Dar al-shifa (1550), Istanbul, Suleymaniye Dar al-shifa and Medicine Madrasah (1556), Istanbul, Atik Valide Dar al-shifa (1583), and Istanbul, Sultan Ahmed I. Dar al-shifa (1626-17). Istanbul, Topkapi Palace Enderun Hospital (Gilmân-i Mariz) (1461-1478) and Hospital of Concubines (Cariveler Hastanesi) (1665) have also been mentioned. In addition to Seliuk and Early and Classical Ottoman Period dar al-shifas, limited number of hospitals, namely, Bursa, Ahmet Vefik Pasha/ Government Hospital (1868), Istanbul, Cemil Pasha Zeynep-Kâmil Hospital (1875-1882), and Istanbul, Bezmiâlem Valide Sultan Hospital for the Poor (1845) all constructed after the adoption of Tanzimat Edict in 1839, have also been examined by using primary and secondary sources. Thus, the research consists of case studies built in early 13th century up till the late 19th century, all located in different parts of Anatolia, but mostly in Istanbul. Regarding their reasons of selection, the Seljuk and Early and Classical Ottoman Period dar alshifas were selected, since they were the only examples in Anatolia still existent and intact today, thus it was possible to conduct field observations, or as in the case of Fatih Dar al-shifa, though not existent today, it was possible to get information on the gender issues by means of archival sources and literature survey. On the other hand, limited number of Late Ottoman Period hospitals have been selected to investigate what kind of new arrangements existed both in terms of accessibility of women to hospital services, medicine education, and gendered space organizations in hospital buildings. Because, in Ottoman society, religious ethical codes and traditional limitations shaped the status of women until the acceptance of Tanzimat Edict, and only after that period, status of women and their rights started to be discussed (Tekin, 2010: 83-84). Thus, it was aimed to make comparisons between the earlier and later period examples. On the other hand, this study stands only as an investigation of "one possible attempt of gendered architecture in historic hospitals of Anatolia", but

in all surviving hospitals, which would be an elusive aim. Waqf deeds and documents provided from the archives of Directorate General of Foundations, travellers' accounts, old medicine books, and old drawings of hospitals were the other sources of information applied during the research. In order to clarify the study more in terms of patient and healer contact during the medical treatment, the first examples of Muslim healing practices from Prophet's Period, and Middle East have also been consulted. In the research, architectural space analyses in case studies in terms of gender and space organization have been limited with the results of field observations, archival documents, and literature survey, and have been done by taking into account and in order to reveal;

naturally, does not attempt to determine the gender, space, and place relations

- The patient and healer relations in terms of privacy considerations, women's access to medical treatment, women healers, and effect of moral codes in Anatolia in medical practices.
- The effect of female builders in architectural and decoration programme of the building

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- Whether specific spaces exist in the hospital, necessitating privacy conditions and gendered segregation,
- In which parts of the buildings gendered architecture are observable, namely, whether at different wards, floors, barracks, compartments, or whether the building itself is totally allocated for women.

Women's Access to Medical Treatment, Moral Codes, and Women Healers

Miri Shefer-Mossensohn (2011: 281-312), a prominent scholar in Muslim medicine, health, and wellbeing, in her article examines the very relations between patient and healer in Ottoman imperial harem from the gender point of view. Her research reveals that Ottoman elite women in harem had limited access to treatment by male physicians. Outside the palace on the other hand, gender aspects of healing were less concerned by non-elite Ottomans (Shefer-Mossensohn, 2011:308). Yet, chief male physicians could treat the female patients in harem, but with a thin cover over them, escorted by a concubine/cariye (Bayat, 1999: 7). From the accounts of Bobovi, a servant in Topkapi Palace in the 17th century, it is understood that, male patients, on the other hand, could be treated by old female healers called as anne (Shefer-Mossensohn, 2003:131-2). Similarly, during the realm of Bayezid II, in Palace School Hospital (Enderun), three old women were allocated to care for young male patients (Kaysılı, 2006: 22-23) (Figure 1). However, in archival registers of Topkapi Palace, among chief physicians of Baslala Tower, female physicians were not mentioned (Bayat, 1999: 7).

In old times, in Anatolia, it was common to look after the patients at their homes. Only the insane and the patients with plague were generally hospitalized, and the rest were looked after at their homes by their mothers, wives, sisters, or servants or a physician was called to home instead of treatment at the hospital (Altıntaş, 2015: 42-43). For instance, according to an archival register (Konya Şer'i Sicili) dated 1614, in Konya Hospital, it was come into question to heal an insane women at the hospital (Altıntaş, 2015: 42-43). Dols (1981: 3, 11) similarly states that, considering the special status of Muslim women in Islamic societies, their families generally take care for mentally ill women patients at home, unless they did not cause serious danger, and when hospitalized there were separate wards for male and female patients. He explaines the very reasons for this situation with Qur'an and Islamic law (Dols, 1981: 11).

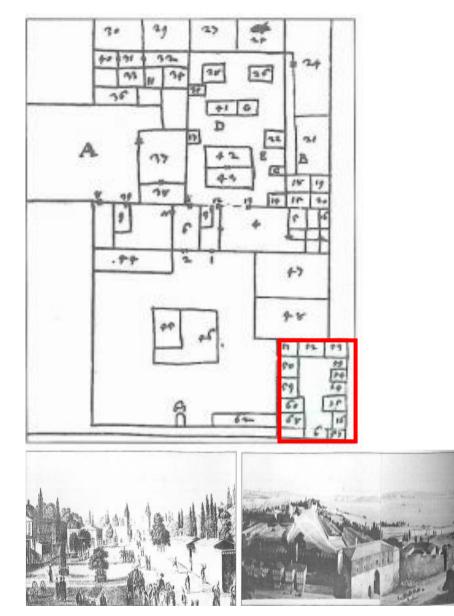


Figure 1: Plan drawing of Topkapı Palace including Enderun Hospital (left), drawn by Bobovio in his book dated 1665. 50: Enderun Hospital, 51: Space for the administrative staff of the hospital, 52: Space for the old female nurses called as *analar*, 53: Hospital belonging to *Has Oda*, 54 Hospital belonging to treasure house, 60: Entrance, 68: The bath of Enderun Hospital, and Enderun Hospital in Topkapı Palace (center-right), drawn by Melling and Fossati, respectively (Source: Terzioğlu, 1992: 177; Kılıç, 2015: 284).

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Colored illustrations of Cerrahiyyet'ül Haniyye written by Şerefeddin Sabuncuoğlu, a famous surgeon in the 15th century, also verify this situation that, only a few female patients were illustrated in this book compared to the male patients (Uzel, 1992). In the book, both the patients and healers were depicted with a cover on their head, and female physicians, practicing gynecological operations, were called as tabibe and midwifes as kabile (Sar, 2009). Similarly, in another book called as Tashrih Badan al-Insan written ca. in 1390 in Iran by Mansur b. Muhammad b. Ahmad, a pregnant women miniature was depicted (Bayat, 2006:3) (Figure 2).

On the other hand, when wagf deeds/documents of Seljuk and Ottoman period hospitals of Anatolia have been examined in detail, the picture that emerges reveals that these documents do not stress, even comment on any kind of gender discrimination of patients admitted into the hospitals during medical practices. Yet, hospital officers mentioned in those waqf deeds give some information about the gender segregation in medical treatments. For instance, both male and female nurses were counted among the officers working under the order of physicians, among them female nurses were called as Nigehban-1 Hastegan, and male nurses were called as bimarc1/bimaran/bimardar, and even during examination of female corpses female servants were allocated (Cetin 2006; Köker, 1991: 23-47; Köker, 1991: 27; Yıldırım, 2010: 24). However, in Ottoman hospitals, moral code of the society necessitated the segregation of the sexes, such that especially, treatment of female patients by male doctors was considered indecent by deontologists (Shefer-Mossensohn, 2003: 131-2), or a Muslim doctor was preferred for the treatment of females (Karaaslan, 2012: 538). Sarı (2009) similarly notifies that preferably, female practitioners treated female patients, but considering the belief in Islam, when it was a necessity, which permited the forbidden, even non-Muslim male physicians could heal the female patients.



Figure 2: Examples from illustrations of female patients in the book *Cerrahiyyet'ül Haniyye* & depiction of a pregnant women (Source: Uzel, 1992: 300-302, 309; Bayat, 2006: 3).

In early Islam, on the other hand, during the Prophet's period women physicians/ healers were so common. For instance, Sifa binti Abdullah el-Kurevsivve (620-640) had learned some treatment methods, especially treatment of skin disorders and had tought it to Hafsa Hatun, wife of the Prophet (Ağırakca, 2004: 79). Esma binti Umeys, Halide binti Enes, Sifa binti Abudallah, and Ümmü Sinan were among the other known female healers in that period. Similarly, Rufeyde el-Ensariyye is known to be the first female physician founding clearing field hospital in history of medicine (Terzioğlu, 1992: 163). In early Islam, during the Prophet's period, Umm Qativa or Umm Sulaym were the other female healers providing medical care to his male companions, demonstrating the "medical contact between men and women in case of necessity" (Pormann, 2017: 658). In addition to female healers there were female nurses, Rubeyye binti Muavvız, Leyla el-Gıfariyye, and Ümmü Umara being only some of them (Ağırakça, 2004: 79-80). In al-Dimnah Hospital dated 9th century near to Great Mosque in Sudan, it is also known that Sudanese women served as nurses (Terzioğlu, 1970: 140). Kaysılı (2006: 51) claims that Turkish women started to work in hospitals only with the beginning of Balkan Wars, and it is considered to be the establishment of nursing profession of women in Turkey. Safiye Ali was the first Turkish women physician with medical training completed in Germany, and after graduation she opened her clinic in Istanbul in 1922 (Arda, 2009: 11). Before the beginning of the 20th century there were traditional women healers, but they were accepted to the medical schools not earlier than that date in Anatolia (Karaaslan, 2012: 538; Arda, 2009: 11). For instance, in the 15th century Ottoman Anatolia, gynecological diseases were treated by female physicians, and a male doctor could intervene the practice only if it was not possible to access to a female physician or if she could not be able to conduct the operation, and for the child births midwifes were called into home (Yıldırım, 2016: 26) (Figure 3). Similarly, it is known that a famous female hernia surgeon called as "Küpeli Kızı Saliha Hatun" based in Uskudar, served both for male and female patients outside of hospitals even in 1621-25 (Cetin, 2006: 67; Taneli & Şahin 2013: 98, 149). In the 17th century, in Anatolia there were also female vaccinators travelling around and variolate small kids (Kahya, 2000: 272) and in Anatolian Selcuk period, there was a women association called as Anadolu Bacıları/ Bacıyan-ı Rum founded as part of Ahi Community, and they also served for taking care of homeless and travellers (Sari ve Akgün, 2008: 1-24). As Yıldırım (2010: 73, 76) stated, Ottomans inherited vaccination from Seljuks and vaccination was generally done by specialized women, since treatment of girls by male vaccinators was considered indecent. In addition, illustrations on transfer of patients to the hospitals show that, female patients could be transferred either on the shoulders of possibly their relatives or on the stretcher by male nurses/relatives (Figure 3).

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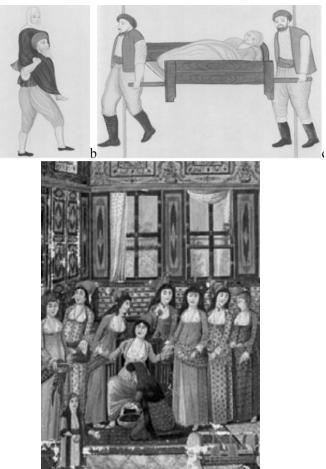


Figure 3: Illustrations showing transfer of female patients to the hospital: transfer on the shoulders (left) and transfer on the stretcher (center), and a scene of a birth in an Ottoman house (right) (Source: Erke, 2002: 158-159; Yıldırım, 2016: 26).

Female Builders and Their Effect in Architecture and Decoration of Historic Hospitals

Historic hospitals were generally built by the sultans, their wifes, daughters, or by rich people to serve for the homeless, poor, lonely patients, merchants, and travellers. In history, the hospitals constructed by female patrons or in memory of women sultans are as follows (Kadıoğlu & Kadıoğlu, 2008: 89-104); Kayseri Gevher Nesibe Hospital (1205-6), Divriği, Turan Melek Dar al-shifa (1228), Amasya, Anber bin Abdullah Dar al-shifa (1308-9), Manisa Hafsa Sultan Dar alshifa (1539), İstanbul, Haseki Sultan Dar al-shifa (1550-57), İstanbul, Atik Valide Dar al-shifa (1579), and Bezm-i Alem Valide Sultan Hospital (1843). As understood from the Archives of Topkapı Palace Museum, b. 4172, f. 5b dated May 1705; Imperial women of the palace not only funded for the construction

of new hospitals but also funded hospices, and donated money and utensils such as blanket, and fur for the sick palace servants (Shefer, 2005: 339-340). In two of the dar al-shifas constructed by female builders in Seljuk Period, different from the Ottoman Period, tomb sections are observable. Among them, in the tomb of Gevher Nesibe Dar al-shifa and Medicine Madrasah, Gevher Nesibe Sultan, the daughter of Seljuk Sultan Rükneddin Kılıç Arslan II, is buried. The building was constructed by Anatolian Seljuk Sultan of Gıyâseddin Keyhusrev I, for his sister Gevher Nesibe Sultan, to treat the patients suffering from love pain (Köker, 1996: 39-42). Divrigi Turan Melek Dar al-shifa, similarly, was built by Melike Turan Melek, the wife of Mengucek Sultan Ahmet Sah. The tomb is located on the north side of the main iwan. There are the graves of Turan Melek, Ahmet Sah and other family members inside the tomb. In both dar al-shifas, their female builders are burried inside the building itself.

Seljuk Period dar al-shifas built by female sultans, also differ from the Ottoman ones, in terms of their stone workmanship with highy rich engraved decorations, some of which including female depictions. In Divrigi Turan Melek Dar al-shifa, for instance, on each side of the entrance portal, there are human figures above the circular rozettes, attributed to the founders of the building, Ahmet Sah and Melike Turan Melek (Durukan 1998: 20) (Figure 4). Similarly, on the portal of Gevher Nesibe Dar al-shifa there is a lion depiction attributed to Sultan Kilic Arslan II, and a dragon depiction, as well as intense geometric and vegetal decorations, and Amasya Anber bin Abdullah Dar al-shifa, constructed by Abdullah oğlu Anber in the name of İlduz Hatun, has geometric, vegetal and figural decorations on its portal (Figure 4). According to Durukan (1998: 19, 23), the rich and intense geometric, vegetal and figurative decorations engraved on the surfaces of the portals in those buildings might be explained with the aesthetic taste of their female builders. In Sivas, Izzeddin Keykavus I. Dar alshifa, similarly, the reliefs of male and female figures (with pigtails) are observable on each side of the main iwan, representing the Sun and Moon, respectively (Cantay, 1992: 48) (Figure 4). Similarly, the building has a highly decorated tomb section on its south side. But, this section is a later addition built with the transformation of the south iwan into a tomb, after the death of Sultan İzzeddin Keykâvus I, in 1220. There are thirteen coffins inside the tomb, the one, in front of the mihrab belonging to the Sultan. The effect of female builders in architecture in the form of tomb addition, and intense usage of decorations including female depictions are observable mostly in Seljuk dar alshifas, rather than in Ottoman ones.



Figure 4: Human figure depictions in Divriği Turan Melek Dar al-shifa (left), in Izzeddin Keykavus Dar al-shifa (center), and in Anber bin Abdullah Dar al-shifa (right) (Source: Photo Archives of the Author, 2011, 2016).

Gendered Spaces and Divisions in Historic Hospitals

Miri Shefer-Mossensohn (2003: 132) claims that, in historic hospitals of Ottomans, male and female patients could have different and/or special spaces/buildings for treatment. Accounts of Evliva Celebi, old drawings, and miniatures also suggest this situation. From the primary sources, segregation of spaces according to gender in historic hospitals of Anatolia has been acknowledged especially in patients' rooms, wards, hamams, masiids, and in service spaces such as toilets, and even in courtyards. Patients' rooms in historic hospitals were generally arranged as separate wards for male, female and nonmuslim patients, and masjids were located only one, most probably allocated just for the usage of the men (Disli, 2014: 28). For instance, from the accounts of Evliva Celebi and by means of old drawings, it is possible to reveal that among the case studies, in Fatih Dar al-shifa in Istanbul, and in Hafsa Sultan Dar alshifa in Manisa, there were separate spaces for male and female patients (Kahraman and Dağlı, 2003: 276). As an instance, in old plan drawing dated 1911 in archives of Directorate General of Foundations (DGF) belonging to Manisa, Hafsa Sultan Hospital, it is clear that different wards were allocated for different sexes (Figure 5). In this old drawing, two toilets, a fountain, a room for the warden and a shared area/courtyard for women were identified in detail, and the ward on the left side of the entrance was specified to be women's ward/nisa koğuşu. Similarly, there were three more wards allocated for women built adjacent to the wall of women's courtyard. It can be inferred that, the part allocated for women was rather smaller when compared to the

whole building complex, and it was totally segregated from the rest of the building. It is also known that in 1916 just before the closure of the hospital, one of the six wardens of the building was female (Altan, 2008: 61). In Edirne, Bayezid II. Dar al-shifa, similarly, Şehsuvaroğlu (1965: 261) claims that the two rectangular rooms opening to the second courtyard and adjacent to the administrative unit were allocated for female patients (Figure 5). From the accounts of Yıldırım (2010: 67) related to Üsküdar Miskinler Tekkesi (16th cc.) in Istanbul, it is also possible to get information about furniture design of separate wards and cloths of male and female patients. For instance, in Miskinler Tekkesi, bed sheets were in blue color for women patients, and they wore baggy pants made of woven cloth.

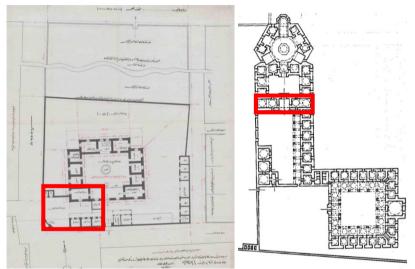


Figure 5: Plan drawing of Hafsa Sultan Dar al-shifa, dated 1911 (left) (Source: Archives of DGF), and plan drawing of Edirne, Bayezid II. Dar al-shifa (right) (women's wards are shown in red brackets) (Source: Cantay, 1992: Pl. 3).

Baths as cleaning spaces for patients, medicine students, or servants of the hospitals were the other parts of historic hospitals that acknowledge gendered segregation. They have been observed as part of both Seljuk and Ottoman period hospitals. For instance, Süleymaniye Dar al-shifa, Atik Valide Dar al-shifa, Haseki Dar al-shifa, and Sultan Ahmed I. Dar al-shifa have baths inside the building (Figure 6). All these baths are single baths, allocated just for males or females in certain times of the day or week. Similarly, in Gevher Nesibe Sultan Dar al-shifa (on the west side) and in Sivas I. İzzeddin Keykavus Dar al-shifa (on the north west corner) of Seljuk period, there were baths located inside the buildings (Dişli, 2014: 37). In Sivas I. İzzeddin Keykavus Dar al-shifa, the toilets, on the other hand, were possibly on two sides of the north and south wings (Dişli 2014: 152). Dinç (2015: 209) also mentions about the existence of a bath section in Fatih Dar al-shifa until 1920s, in which there were separate parts for male and female users, for the cleaning of the bodies and clothes of the users.

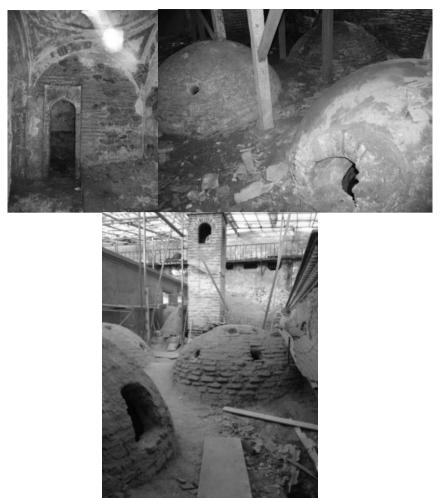


Figure 6: The bath of Atik Valide Dar al-shifa (Source: Photo Archives of the author, 2014).

Evliya Celebi describes the Fatih Dar al-shifa as a seventy-room, eighty-dome building with a separate hospital in a corner near the main building, dedicated solely for women and non-Muslim patients (Kahraman and Dağlı, 2003: 276). Tschanz (2017: 441) similarly, claims that bimaristans were either served for men or women, or for both sexes, but in separate wings with duplicate facilities. Based on an old drawing dated 1826-27 by the French architect Pascal Costre, such a division can be clearly identified in Kalavun Maristan in Cairo, in which patients' rooms were separated according to their gender (Figure 7) (Terzioğlu, 1992: 168-170). In the Municipality Hospital in Baghdad, similarly, a separate ward was allocated for the female patients (Yılmaz, 2007: 234). Özdemir (2012: 49), likewise, states that in Seljuk period dar al-shifas, the physicians visited and treated the male and female patients staying in different rooms/wards separated according to type of their illnesses in early mornings. To him (201:

86), in Amasya, Anber bin Abdullah Dar al-shifa a similar situation could have been applied, such that the building might have been planned in a symmetrical manner from the beginning in order for the treatment of male and female patients in the same building, but in different separated wings located on the east and west side of the courtyard. In addition to separate wings, separate toilets, attached to each wing, were evaluated to be allocated for different sexes. Similarly, Bursa Government Hospital was enlarged in 1879 by the governor of the time Ahmet Vefik Pasha, thus it had the capacity to hospitalize 45 male and 15 female patients. Later in 1913, separate wards were reserved for male and female patients, the east wing, with lattice windows, belonging to the women (Erer, 2010: 247-248) (Figure 8). The hospital had a gynecology and obstetrics department even when it was first constructed, and according to the hospital registers, Dr. Mehmet Tevfik Edebey was among the first physicians in that department (Erer, 2010: 249).

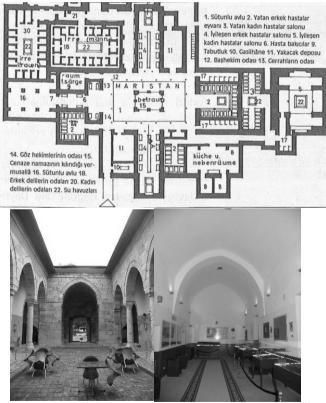


Figure 7: Plan drawing of Kalavun Maristan in Cairo (left) (Source: Terzioğlu, 1992:168), (center-right) a view from the courtyard and one of the wings of Amasya Anber bin Abdullah Dar al-shifa (Source: Photo Archives of the Author, 2011).

Besides different wards, different barracks were also observable for male and female patients in hospitals. For instance, in 1910, a temporary cholera hospital was established in Demirkapı, Gülhane with six temporary barracks, one of which

was allocated only for female patients. (Yıldırım, 2010: 95). In Zeynep-Kâmil Hospital, on the other hand, given to use of Cemil Pasha in 1896, instead of different barracks, different compartments for male and female patients were reserved on different floors. In 1935, it was transformed into maternity ward, and in 1952, a 150-bed gynecology clinic for women was added near to the hospital as a different building (Etker et al., 2004: 7, 9). Treatment and operation rooms of male patients were planned at downstairs, and infectious disease wards, operation room and surgery ward for female patients were located at the upper floor (Yıldırım, 2010: 263-264). In fact, the building was first opened as "nisa hastanesi" allocated just for women in 1882, and in that date, about twenty female servants were appointed for cleaning services, yet the first physicians of the hospital were non-Muslims (Etker et al., 2004: 4, 7). Similarly, Bezmiâlem Valide Sultan Hospital for the Poor was the first wagf gureba hospital built in Istanbul after the construction of the last dar al-shifa Sultan Ahmed I. It was built by the daughter of Sultan Abdulmecid in 1845 for male patiens, but during the Crimean War, it opened its gates also for immigrant female patients (Yıldırım, 2019: 201, 224). In 1860, female immigrants coming from Caucasus were transferred into this hospital, and for the first time female midwifes and servants were allocated for serving the inpatiens and pregnant women to be treated in the hospital. During the World War I, a nursing course was opened and thirteen servants were given theoretical and practical education by the physicians in the hospital (Yıldırım, 2019:225, 232).

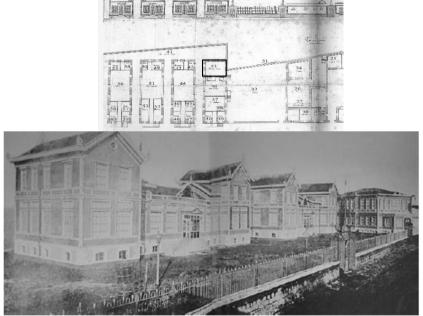


Figure 8: The Municipality Hospital in Baghdad, number 33 is women's ward (left), &Ahmet Vefik Pasha/Bursa Government Hospital (right) (Source: Yılmaz, 2007:234; Erer, 2010:248).

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In some other cases, gender division is applied on the whole hospital building, instead of creating different rooms, wings, wards, and courtyards for different sexes inside the same building. As an instance, in Ottoman Turkish Dictionary of Develioğlu, hospitals that served for the birth of poor women were called as darülvilade and clinics for gynaecological diseases were named as nisaivve (Devellioğlu, 1997:168, 840). Similarly, hospital of concubines in Topkapı Palace (Cariveler Hastanesi) was built in 1665 just for women living in the Palace. It had different sections such as wards, bath, laundry, kitchen, courtyard, and gasilhane (Figure 9). It is also known that, in Eski Saray, similarly, there was a hospital just for concubines, with a developed women health organization, namely all the healers were women and organized in a hierarchical manner (Kılıc, 2015:288-289). There are also historic hospitals in Anatolia which were first constructed for both sexes but later turned into a women hospital, partially or totally. For instance, though not built just for male or female patients at the beginning, in Atik Valide Dar al-shifa, guest house/ tabhane section of the mosque complex was allocated for women in 1899 (Dişli, 2016:269; Saygılıgil-Gündüz, 1999:30). Dar alshifa and guest house sections were adjacent to each other with a bath, kitchen and a depot in between (Saygılıgil-Gündüz, 1999: 129-133). In addition, during the epidemic cholera in 1910, separate guarantine parts, kitchen, operation rooms, laboratuary and policlinics were built in the building for male and female patients (Yıldırım, 1994:195). Similarly, in the Almshouse/ Darülâceze dated 1896, two separate hospitals were constructed for different sexes (Yıldırım, 2010:257). The Haseki Dar al-shifa, similarly, was started to be used just for women before 1843 and only women patients (prostitutes) were treated there (Yıldırım, 2010:210). Yet, because of the poor environmental conditions, narrow spaces, and poor inside air of the dar al-shifa, it was decided to transfer the patients into another building, in which poor women were treated free of charge in 1884. In 1890, that building was demolished and Haseki Women's Hospital was constructed in the same area in pavilion plan type with each unit established in separate buildings (Yıldırım, 2010:211-212) (Figure 10).



Figure 9: Courtyard of concubine hospital (left), gasilhane and laundry sections of concubine hospital (center), concubines in an old drawing (rigth) (Source: Kılıç, 2015: 290, 294, 296).

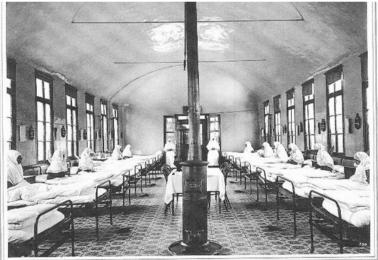


Figure 10: The ward of tuberculosis of Haseki Hospital of Women (Source: Yılmaz, 2007:30).

Discussion and Conclusion

Saygiligil (2013:210) categorizes the gender of space as public and private spaces. To her, public spaces are primarily male dominant areas, and even in similar spaces women and men have different experiences. Sennett (2001:62-63) argues that public and private space distinction takes its roots from Ancient Greek philosophy, for which women and the child should be

secluded inside the houses with limited number of windows and disguised behind the high walls. According to Çakır (2010:133-149) women encountered with limitations during the process of involvement in public spaces, and it was not earlier than the 20th century that women could roam freely in the city with all her rights, and gain visibility in public realm. Kumcu Ilal (2010: 117-132) similarly, states that women in Ottoman society of Anatolia had confined relations with the outside world, and public baths/ hammams were the primary spaces for their socialization. In the same way, gender of historic hospitals as one of the public spaces in Anatolia, have been investigated as the main focus of this research. This paper discusses their gendered space divisions, and examines how medical ethics, clinical practices, as well as privacy considerations and female builders affected the gender-space relationship in those spaces of healing, thus offers a perspective so far little studied. Though not in detail, some comparisons have also been made between the Seljuk and Ottoman Period hospitals in order to have an insight on the similarities and differences in various periods. Yet, as further studies, it could be suggested to examine other cases of surviving historic hospitals built in Late Ottoman period in order to reveal gendered architectural perspective more deeply after the acceptance of Tanzimat, as the next step of this research. Primary conclusions of the study are outlined as follows:

- Both in Ottoman and Seljuk period dar al-shifas in Anatolia, when first constructed, different parts such as patients' rooms, and wards, were observable both for different sexes, but it was not common to hospitalize female patients in dar al-shifas, instead, only in the 19th century, hospitalization of female patients became a more usual practice (Sarı, 2009). Similarly, especially in late 19th century, hospitals were started to be constructed or transformed just for the use of male or female patients.
- In addition to separate wards and rooms, in some cases, different floors and barracks were allocated for different sexes. This application is observable especially in case studies of Late Ottoman Period Hospitals.
- Cariyeler Hastanesi/hospital for concubines, darülvilade, nisa hastanesi/women's hospital, nisaiyye were some common terms used for the definition of treatment spaces serving just for female patients.
- The baths in hospitals are mostly single baths, which can be explained as their dual usage by male and female users in different parts of the day or week. *Cariyeler Hastanesi* had its own bath allocated just for women, and only in Fatih Dar al-shifa, the bath is mentioned to have separate parts for male and felame patients/users.
- The toilets, patients' rooms/wards, and masjids in dar al-shifas could be identified to some extent, which support the gender segregation, as in Amasya Anber bin Abdullah Dar al-shifa, Süleymaniye Dar al-shifa, Fatih Dar al-shifa, and Hafsa Sultan Dar al-shifa. In dar al-shifas, in which masjids could be identified, there was only one in number in the buildings, which can be explained as the allocation of this space just for the male patients considering the privacy conditions.

- In Muslim society, moral code necessitated the segregation of the sexes, or else it was common to look after the patients at their homes or a physician was called for the treatment of the patient at home. Dar alshifas were instead healing places for the poor, homeless, travellers, strangers, merchants, and for the patients with serious diseases.
- Even at the beginning of early Islam, women were mentioned among the traditional healers of the patients, but they were geneally performing this duty out of hospitals. Yet, in archival registers, female nurses, called as *Nigehban-1 Hastegan*, were mentioned in order to look after female patients inside the hospitals. There are also sources confirming the existence of female physicans and surgeons treating the male patients and soldiers in the 17th century. Yet, treatment of female patients by male doctors was considered indecent by deontologists (Shefer-Mossensohn, 2003: 131-2). But, from the accounts of a foreign official lived in early 17th century in Istanbul, it is understood that, in spite of religious conviction, female patients did not hesitate to be treated by male physicians (Sarı, 2009).
- Both in Seljuk Period and especially in Ottoman Palace, there were female patrons built hospitals for women and for the general public, or, dar al-shifas were constructed in memory of women sultans. But elite women in the harem had limited access of healing by male physicians compared to the non-elite Ottomans (Shefer-Mossensohn, 2011:308). Instead, patients' mistress (*hastalar ustası*), the female warden (*kethüda*) of patients, and their assistants were responsible for the health services of concubines. There were also paid male physicians and surgeons appointed in the harem, and even in Late Ottoman period, male gynaecologists were called to harem (Sarı, 2009). But, only, in some special cases male physicians could treat the female patients living in the harem, mostly covered with a thin cloth over them (Bayat, 1999: 7).
- Old miniatures and illustrations, though rather rare in number, support that female patients and gynecological diseases were generally treated by women healers, and child births were executed at homes by the midwifes (Yıldırım, 2016). In Cerrahiyyet'ül Haniyye of Sabuncuoglu, for instance, female physicians (*tabibe*) were depicted healing female patients.
- It was at the first half of the 20th century that official medical training of female students were observable in Turkey in medicine schools. Before that date, most probably master-apprenticenship or mother to daughter teaching methods were so common for female practitioners (Sarı, 2009).
- In three of Seljuk Period dar al-shifas, tombs are located inside the buildings. Among them, only in Gevher Nesibe Dar al-shifa and Medicine Madrasah, the tomb is allocated solely for a female Sultan, Gevher Nesibe, whose coffin is inside the crypt section, above which is a masjid. The female builder of Divriği Turan Melek Dar al-shifa, similarly was burried inside the tomb section of the building with the other family members.

- In some of the Seljuk Period dar al-shifas, depiction of female figures are observable either on the entrance portal or on the main iwan, and they have more intense and richer decorations compared to the Ottoman Period dar al-shifas, which were even constructed by female builders. In Divriği Turan Melek Dar al-shifa, the female figure on the right side of the portal, is attributed to its female builder (Durukan 1998: 20).
- In Manisa, Hafsa Sultan and Edirne, Sultan Bayezid II. Dar al-shifas, the wards allocated for female patients were less in number compared to the ones belonging to male patients, which might be explained with the privacy considerations and less common usage of healing spaces by female users.

References

- Ağırakça, A. (2004). İslam Tıp Tarihi, Başlangıçtan VII.-XIII. Yüzyıla Kadar. İstanbul: Nobel Tıp Kitabevi.
- Altan, S. (2008). Geçmişten Günümüze Manisa Hafsa Sultan Bimar-hanesi: 1539-2008. In Amasya Uluslararası Anadolu-Türk Darüşşifaları ve Sabuncuoğlu Kongresi, Kadıoğlu, S., Kadıoğlu, F. G. & Uzel, İ. (Eds.), (pp. 57-62). Ankara: Anıt Matbaa.
- Altıntaş, A. (2015). Anadolu Selçukluları ve Osmanlı'da Tıp ve Darüşşifalar. In Anadolu Selçuklu ve Osmanlı Şefkat Abideleri Şifahaneler, Kılıç, A. (Ed.), 2. Edition (pp. 21-60). İstanbul: Bilnet Publishing House.
- Altıntaş, A. (2015). Konya Darüşşifası (Selçuklular ve Osmanlılar Döneminde). In Anadolu Selçuklu ve Osmanlı Şefkat Abideleri Şifahaneler, Kılıç, A. (Ed.), 2. Edition (pp. 137-143). İstanbul: Bilnet Publishing House.
- Amasya, Bursa, Edirne, İstanbul, Kayseri, Manisa, Sivas ve Tokat Illerindeki Darüşşifalara Ait Vakfiye, Fotoğraf, Teknik Çizim ve Idari Raporlar Dizini (2011). Ankara, Vakıflar Genel Müdürlüğü Arşivi.
- Arda, B. (2009). Anatolia; the Cradle of Modern Medicine. Ankara Üniversitesi Tip Fakültesi Mecmuasi, 62(1): 8-12.
- Bayat, A. H. (2006, December). Turkish Medical History of Seljuk Era. Foundation for Science, Technology and Civilisation, FSTC Limited, 2-14.
- Bayat, A. H. (1999). Osmanlı Devletinde Hekimbaşılık Kurumu Ve Hekimbaşılar. Ankara: Atatürk Kültür Merkezi Yayınları.
- Bolak, O. (1950). Hastanelerimiz. İstanbul: İstanbul Matbaacılık.
- Cantay, G. (1992). Anadolu Selçuklu ve Osmanlı Darüşşifaları. Ankara: Atatürk Kültür, Dil ve Tarih Yüksek Kurumu Atatürk Kültür Merkezi Yayını.

Çakır, S. (2010). Mekanın Kadınlar Açısından Kurgulanışına Kuramsal ve Tarihsel Süreç İçinde Bakmak. In Kadın ve Mekan Tutsaklık mı Sultanlık mı? Akpınar, A., Bakay, G., Dedehayır, H. (Eds), (pp. 133-149). İstanbul: Turkuvaz Publishing.

- Çetin, O. (2006). İlk Osmanlı Hastanesi, Bursa Yıldırım Darüşşifası (Bursa Mahkeme Sicillerine Göre). İstanbul: Göz Nurunu Koruma Vakfı Yayınları.
- Dengiz, E. B. (2001). Boundaries of Gendered Space: Traditional Turkish House. Unpublished master's thesis, Bilkent University, Ankara.
- Devellioğlu, F. (2004). Osmanlıca Türkçe Ansiklopedik Lugat. Ankara: Aydın Kitabevi.
- Dinç, G. (2015). Fatih Darüşşifası. In *Anadolu Selçuklu ve Osmanlı Şefkat Abideleri Şifahaneler*, Kılıç, A. (Ed.), 2. Edition (pp. 205-215). İstanbul: Bilnet Publishing House.
- Disli, G. (2018). Analysis of Ancient Ventilation and Illumination Practices in Anatolian Seljuk and Ottoman Hospitals and Suggestions for their Conservation Measures. *International Journal of Heritage Architecture*, 2(1): 174-185.
- Dişli, G. & Özcan, Z. (2016). An Evaluation of Heating Technology in Anatolian Seljuk Period Hospitals (Darüşşifa). *METU Journal of Faculty of Architecture*, 33(2): 183-200.
- Dişli, G. (2015). Planning of Functional Spaces in Ottoman Period Hospitals (Darüşşifa) of Anatolia. *Al-Masaq: Journal of the Medieval Mediterranean*, 27(3): 253-276.
- Dişli, G. (2014). Anadolu Selçuklu ve Osmanlı Darüşşifalarında İşlevsel Sistemlerin ve Koruma Ölçütlerinin İrdelenmesi. Unpublished doctoral dissertation, Gazi University, Ankara.
- Disli, G. & Ozcan, Z. (2014). Waste and Clean Water Systems in Anatolian Seljuk and Ottoman Period Hospitals. *International Journal of Academic Research*, 6(3):169-177.
- Disli, G. (2014). Sustainability of Historic Building Systems: Anatolian Seljuk and Ottoman Hospitals. *APT Bulletin: Journal of Preservation Technology*, 45(4): 45-51.
- Dols, M. W. (1987). Insanity & Its Treatment in Islamic Society. *Medical History*, 31:1-14.
- Durukan, A. (1998). Anadolu Selçuklu Sanatında Kadın Baniler. *Vakıflar Dergisi*, 27: 15-36.
- Erer, S. (2010). Osmanlılar Döneminde Bursa'da Yaptırılan Hastaneler. U.Ü. Fen-Edebiyat Fakültesi Sosyal Bilimler Dergisi, 19(2): 241-252.
- Erke, Ü. & San, N. (Eds.) (2002). Turkish Medical History through Miniature Pictures Exhibiton. In 38th International Congress on History of Medicine. İstanbul: Nobel Publishing.

- Etker, Ş., Günergun, F. & Köşe, A. (2004). Zeynepkamil Hastanesi'nin Kuruluşu ve Vakfiyesi. In Osmanlı Bilimi 2 Araştırmaları V/2: 1-37.
- Green, M.H. (2003). History of Science. In Encyclopedia of Women and Islamic Cultures Vol. 1, Methodologies, Paradigms and Sources, Joseph, S. (Ed.), (pp. 358-361). Leiden: Brill.
- Kadıoğlu, F.G. & Kadıoğlu, S. (2008). Adı Darüşşifalara Ad Olan Kadınlar. In Amasya Uluslararası Anadolu-Türk Darüşşifaları ve Sabuncuoğlu Kongresi, Kadıoğlu, S., Kadıoğlu, F. G. & Uzel, İ. (Eds.), (pp. 89-104). Ankara: Anıt Matbaa.
- Kahraman, S.A. & Dağlı, Y. (Ed.) (2003). *Günümüz Türkçesiyle Evliya Çelebi Seyahatnamesi 1*. İstanbul: Yapı Kredi Yayınları.
- Kahya E. & Erdemir, A. D. (2000). Bilimin Işığında Osmanlıdan Cumhuriyete Tıp ve Sağlık Kurumları. Ankara: Türkiye Diyanet Vakfı Yayınları.

Kaysili, B. (2006). Tanzimat'tan Cumhuriyet'e Türkiye'de Saglik Egitimi Üzerine Bir Arastirma (1839-1938). Unpublished master's thesis, Selcuk University, Konya.

- Karaslan, A. (2012). Health Facilities in Bosnia-Herzogevina. In *The Light of Ottoman Documents*. IBAC, 2: 534-541.
- Kılıç, A. (Ed.) (2012). Anadolu Selçuklu ve Osmanlı Şefkat Abideleri Şifahaneler. İstanbul: Medicalpark.
- Köker, A.H. (1991). Selçuklu ve Osmanlı Devirlerinde Tıp Öğretimi ve Eğitimi. In Selçuklular Devrinde Kültür ve Medeniyet, Gevher Nesibe Sultan Adına Düzenlenen Selçuklu Gevher Nesibe Sultan Tıp Fakültesi Kongresi, (pp.23-47), Kayseri.
- Köker, A.H. (1996). Gevher Nesibe Dârüşşifâsi ve Tıp Medresesi. TDV İslam Ansiklopedisi, 14: 39-42.
- Kumcu İlal, S. (2010). Osmanlı'da Kadın ve Hamam Kültürü. In *Kadın ve Mekan Tutsaklık mı Sultanlık mı?* Akpınar, A., Bakay, G., Dedehayır, H. (Eds), (pp. 117-132). İstanbul: Turkuvaz Publishing.
- Ozcan, Z. & Disli, G. (2014). Refrigeration Technology in Anatolian Seljuk and Ottoman Period Hospitals. *Gazi University Journal of Science (GUJ Sci)*, 27(3): 1015-1021.
- Özdemir, C. (2012). Amasya Darüşşifası ve Cerrah Sabuncuoğlu Şerafeddin. Amasya: Amasya Valiliği.

Photo Archives of the Author, 2011, 2014, 2016.

Pormann, P.E. (2017, October). Female Patients, Patrons and Practitioners in the Medieval Islamic World. *Aspetar, Sports Medicine Journal*, 656-660.

- Sari, N. (2009). Women Dealing with Health during the Ottoman Reign. Accessed: April 29, 2020. https://muslimheritage.com/women-dealing-with-health-during-the-ottoman-reign/.
- Sarı, N. & Akgün, B. (2008). Türk Tarihinde Psikiyatri Hastasına Kısa Bakış. In *İ.Ü. Cerrahpaşa Tıp Fakültesi Sürekli Tıp Eğitimi Etkinlikleri 1, Türkiye'de Sık Karşılaşılan Psikiyatrik Hastalıklar Sempozyum Dizisi 62* (pp. 1-24). Istanbul: Istanbul University.
- Saygılıgil-Gündüz, F. (1999). Osmanlı Devletinde İstanbul'da Kadınlara Hizmet İçin Açılan Hastahane ve Klinikler. Unpublished master's thesis, İstanbul Üniversitesi, İstanbul.
- Saygılıgil, F. (2013). Mekânin Cinsiyeti. Sosyal ve Beşeri Bilimler Dergisi, 5(1): 209-218.
- Sennett, R. (2001). *Ten ve Taş: Batı Uygarlığı'nda Beden ve Şehir*. Birkan, T. (Trans.). İstanbul: Metis Publishing.
- Shefer-Mossensohn, M. (2011). A Sick Sultana in the Ottoman Imperial Palace: Male Doctors, Female Healers and Female Patients in the Early Modern Period. *Journal of Women of the Middle East and the Islamic World*, 9: 281-312.
- Shefer, M. (2005). Old Patterns, New Meaning: The 1845 Hospital of Bezm-i Alem in Istanbul. Dynamis. Acta Hisp. Med. Sci. Hist. Illus., 25, 329-350.
- Shefer-Mossensohn, M. (2003). Charity and Hospitality: Hospitals in the Ottoman Empire in the Early Modern Period. In *Poverty and Charity in Middle Eastern Contexts*, Bonner, M., Ener, M. & Singer, A. (Eds.), (pp. 121-143). New York: State University of New York Press.
- Şehsuvaroğlu, B.N. (1965). Edirne II. Bayezid Darüşşifası. Ankara: Armağan Kitabevi.
- Taneli, B. & Şahin, H. (Eds.) (2013). Cumhuriyetten Önce ve Sonra Ülkemizde Hastaneler, Çocuk Hastaneleri ve Tıp Eğitimi. İzmir: Ege Üniversitesi.
- Tekin, S. (2010). Osmanlı'da Kadın ve Kadın Hapishaneleri. *Tarih Araştırmaları Dergisi*, 29(47): 83-102.
- Terzioğlu, A. (1999). Osmanlı'da Hastaneler, Eczacılık, Tababet ve Bunların Dünya Çapında Etkileri. İstanbul: Kültür Bakanlığı Yayınları.
- Terzioğlu, A. (1992). Bimaristan. In Türkiye Diyanet Vakfı İslâm Ansiklopedisi, Vol. 6, (pp. 163-175). İstanbul: Türkiye Diyanet Vakfı Yayınları.

Terzioğlu, A. (1970). Orta Çağ İslâm-Türk Hastaneleri ve Avrupa'ya Tesirleri, *Belleten*, XXXIV/2: 121-149.

Tschanz, D. W. (2017, October). Bimaristans and the Rise of Modern Healthcare Systems. *Aspetar, Sports Medicine Journal*, 438-443.

Uzel, İ. (1992). Cerrahiyyet'ül Haniyye I. Ankara: Türk Tarih Kurumu Yayınları.

- Yıldırım, N. (2010). *A History of Healthcare in Istanbul*. İstanbul: Düzey Publishing.
- Yıldırım, N. (1994). Toptaşı Bimarhanesi. In *Dünden Bugüne İstanbul Ansiklopedisi Vol. VII*. Tekeli, İ. (Ed.). İstanbul: Kültür Bakanlığı ve Tarih Vakfı Yayınları.
- Yıldırım, N. (2019). Bezmiâlem Valide Sultan Vakıf Gureba Hastanesi. In *Vakıf Kuran Kadınlar*. Başar, F. (Ed.). Ankara: Vakıflar Genel Müdürlüğü Yayınları, 201-240.
- Yıldırım, N. (Curator). (2016) Sultan Bayezid II Edirne Dar Al-Shifa, University of Thrace Health Museum of the Sultan Bayezid II Complex Dar Al-Shifa' (Hospital) Section, Ottoman Medicine, 15-18th Centuries, 1-32, Abdi İbrahim Publishing. Accessed: May 08, 2020. https://www.abdiibrahim.com.tr/doc s/default-source/default-document-library/sorumluluk/edirne-darussifa/ edirne-daru%C5%9FiKc5%9Fifas%C4%B1_katalog.pdf?sfvrsn=.
- Yılmaz, Ö. F. (Ed.) (2007). *Last Period Ottoman Hospitals*. Istanbul: Çamlıca Publishing.