

Idris Yaybulak (1899-1970): A pharmacist who made significant contributions to society through his professional initiatives and social service endeavors

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ABSTRACT: Following the initiation of medicine production in the 1830s, pharmacists in Türkiye progressively rose in number, facilitating the advancement of the national pharmaceutical industry. In the aftermath of World War I, pharmacists, who intensified their efforts, made significant contributions to the profession across different fields and served the public in unity following the proclamation of the Republic, supporting one another. They have consistently endeavored to foster innovation through the development of various pharmaceuticals. The data about one of them, Pharm. Idris Yaybulak (1899-1970), has been restricted in the literature. This study aims to gather and elucidate information regarding his life and contributions to pharmacy and social services. He took his pharmacy education in Russia. In addition to providing pharmacy counseling to patients in his pharmacy, he contributed to health care by producing various pharmaceuticals and products in his pharmacy laboratory, and also established a formulary *Idris Formülleri* to assist his colleagues and distributed it at no cost. He contributed to the advancement of the pharmaceutical industry, participated in the founding of the *Türkiye Tıbbi Müstahzar Sanayi ve Laboratuvarları Cemiyeti* (Society of Pharmaceuticals Industry and Laboratories of Turkey), and benefited society by engaging in civil and social service initiatives. He believed the power of the collaborations between pharmacists to solve problems and conflicts, and also tried to help pharmacists for simplifying the complex pharmacy practices and did a lot of works to obtain standardisation and quality system, in Turkey. In addition to his social and professional contributions, he supported Turkey's professional and economic development in many ways by providing health services from his pharmacy and later his laboratory.

KEYWORDS: Idris Yaybulak; pharmacy; pharmaceutical production; pharmacy history; social services.

1. INTRODUCTION

In 1820s, there were only two pharmaceutical products in Turkish pharmacies: Theriaque and Melissa Water (*esprit de melisse*) [1]. It is known that the medicine production in Türkiye began in the first half of the 19th century. Pharmacie Britannique (İngiliz Eczanesi), opened in 1833 in Beyoğlu-Istanbul, led this production [2]. Following this, Turkish pharmacists began manufacturing their own medication (e.g., Sirop Pertev, Elixir Digestive Hamdi, Elixir Sureyya, Iodopepton Kazım). Hence, the Turkish pharmaceutical industry began to come into developing. In these years, the pharmacists used especially the books, *L'Officine*, *Répertoire Général de Pharmacie Pratique* and *Codex, Pharmacopée Française* [3]. After the proclamation of the Turkish Republic, a Turkish codex was prepared and published first time in 1930 [4,5]. The pharmacists preferred these three books in their drug production after this year and have always tried to bring about innovation by producing different drugs. They helped each other for this. As in the foreword of his formulary *Idris Formülleri* [6], Pharm. Idris Yaybulak, owner of the Yaybulak Laboratory, prepared this formulary so that he can help other colleagues. In addition to providing pharmacy counseling to patients in his pharmacy, he also contributed to health care by producing various pharmaceuticals and products in his pharmacy laboratory. He also took initiatives to benefit his colleagues. For the production of pharmaceuticals, he gathered information from various reference sources integrated it with his own expertise, and supplied the formulary to his colleagues at no cost. In addition to contributing to the

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formation of a professional society [*Türkiye Tıbbi Müstahzar Sanayi ve Laboratuvarları Cemiyeti* (Society of Pharmaceuticals Industry and Laboratories of Turkey)] and advancing the pharmaceutical industry, he also engaged in civil society and social service initiatives to benefit the community. The data that exists about him has been restricted in the published sources to date. This study aims to gather and elucidate information regarding his life and contributions to pharmacy and social services.

2. RESULTS AND DISCUSSION

2.1. A short biography of Idris Yaybulak

Idris Yaybulak was born in 1899 (Figure 1a) as the son of Ismail Kuluzade and Mestan Kuluzade, both Azerbaijani notables. Idris Yaybulak wed Tamara before to the declaration of the Turkish Republic and took his pharmacy education in Russia. Their first son Tevfik was born in 1923 (Figure 1b). Subsequent to the birth of their son, Doctor Tevfik Yaybulak, who later pursued a career in medicine, they had one further son, Mithat, and one daughter, Gülşen. Following the outbreak of a revolution in this region, Idris, Tamara, and their sons were compelled to travel to Istanbul individually. Subsequent to these events like a cinematic story, the family could reconvene in Istanbul. Their daughter Gülşen had married with Ayhan Işık, one of the most famous Turkish actors. Idris Yaybulak was the father-in-law of Leyla Yaybulak, Ayten Yaybulak and the uncrowned king of Turkish cinema, actor Ayhan Işık; and the grandfather of Fevziye and Selma Yaybulak, Serap Işık, Kübra and Sugra Yaybulak. The death in Istanbul of Idris Yaybulak, who worked for the development of pharmaceutical science and industry throughout his life, was announced in the newspaper dated April 29, 1970, and was laid to rest in Istanbul (Zincirlikuyu Cemetery) after a funeral ceremony held in Şişli Mosque [7].



Figure 1. Tombstone of Pharm. Idris Yaybulak and Tamara Yaybulak (a); Tombstone of Dr. Tevfik Yaybulak (b).

2.2. Professional Works of Idris Yaybulak

In the literature, his graduation from School of Pharmacy was dated as 1917 [8]. Since his name cannot be found in the existing diplom book records of Istanbul University Faculty of Medicine, School of Pharmacy (existing in Turkish History of Pharmacy Research Museum, Istanbul University¹), it can be estimated that after his education in Russia, he received equivalency in Istanbul and worked as a pharmacist here. He began to work in Burgazada Pharmacy as owner. In a short time, he also started the production of his own products in his laboratory, called *Idris Yaybulak Tıbbi Müstahzarat Laboratuvarı* (Idris Yaybulak Pharmaceuticals Laboratory). It was in a passage called Sabuncu Han in Istanbul (Ketenciler). Its mandate manager was Karakin Kürkçüyan (grad.1900). In 1946, Pharm. Idris Yaybulak assigned the Burgazada Pharmacy to Pharm. Abdülatif Erdi and concentrated on the laboratory works. In the laboratory, a lot of

¹ It is located inside of Istanbul University Faculty of Pharmacy (Building A) at the address "Besim Omerpasa Cad. No:1 Beyazit-Fatih 34116, Istanbul, Türkiye".

pharmaceuticals were produced [8]. After a while, he opened the Menderes Pharmacy in Laleli-Aksaray (Istanbul) with his laboratory. While he was working in his pharmacy and laboratory, he wrote a formulary, named as *Formüler Idris* (Idris' Formulary) and it was distributed from that laboratory, free of charge [6]. Idris' Formulary (Figure 2), published in 1941, comprises 118 pages. It was the first formulary written in Turkish with the new alphabet after the foundation of the Turkish Republic. He derived advantages from multiple references, including *Türk Kodeksi* (Turkish Codex), *L'Officine répertoire général de pharmacie pratique*, *Hekimler İçin İlaçlar ve Tedaviye Ait Notlar* (Aide-Mémoire Pharmaceutique de Poche du Médecin et du Pharmacien), *Index Merck*, *Kinin Formülleri Cinchona Instituut*, *Lügatı Tıp* (a medical dictionary), and *Formulaire majistral*. It compiled useful data on frequently utilized active ingredients, plants, drugs, extracts, and certain mixtures, detailing their properties, including physical and chemical characteristics, interactions with other ingredients, common formulations, dosages, and indications, as well as helpful lists for pharmacists. A comprehensive evaluation on the content of this formulary was presented at the 44th International Congress for the History of Pharmacy in 2019 by Sen-Utsukarci and Mat [9].

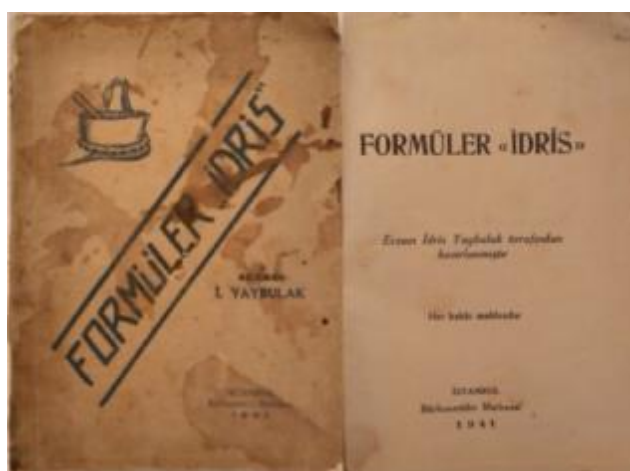


Figure 2. Front and inner covers of the Idris' Formulary [6].

As understood from various issues of the journal *Farmakoloğ* of *Türkiye Eczacıları Cemiyeti* (Pharmacists Association of Turkey) (e.g. 1941, 1943a, 1943b, 1948, 1951, 1952, 1953) [10-16], the student yearbooks of Istanbul University Faculty of Medicine School of Pharmacy (Yearbook 1946-1947) [17], the records of Sandalcı and Sandalcı [8] and the collections of Assoc. Prof. Dr. Burcu Sen [18], Pharm. Gülnur Sandalcı and Eng. Mert Sandalcı, and Pharm. Nezih Barut [19], the pharmaceutical preparations² such as **tablets** [*Idris Dover Komprimeleri* (tablets against cough and bronchitis, 1938), *Asepitin Tablet* (Asepitin Tablets, 1939), *Sülfat dö kinin Komprimeleri* (quinine sulfate tablets, 1939), *Kinin Klorhidrat Komprimeleri* (1941), *Fortobin Komprimeleri* (tablets against impotence, 1942), *Fedrinol Tablet* (tablets for asthma, emphysema, oppression, depressions, and persistent and seizures situations, 1947), *Efedrin Komprime Medica*]; **cachets** [*Deva Kaşeleri* (cachets for pain relief, 1939)]; **dragees** [*Testobin Draje*]; **lozenges** [*Santonin Pastil* (santonin containing lozenge, 1939), *Laksin İdris Pastili* -its other names: *Laxine*, *Laksin Müshil Şekeri*- (laxative lozenge, 1941)]; **pills** [*Idris Müshil ve Mileyin Hapları* (laxative pills, 1940)]; **syrups** [*Panoton Şurup* (1948), *Tono vitex Kuvvet Şurubu* (strength syrup)]; **ampoules** [*Neo-Calcium Ampul* (5cc. and 10 cc.), *Ampul Riboflavine Idris Forte* and all Codex ampoules such as *Ergotine*]; **serums** [*Serumlar* (serums; "%0.9; %0,3; %5; %30")]; **powders** [*Rozma Idris* (hair removal powder, 1940)]; **effervescent** [*Uro-Soude Effervescent* (1944) and *Uro-Soude Effervescent Granule* (for kidney and bladder stones and inflammation, 1944)]; **toothpastes** [*Edolin Diş Macunu*, 1939]; **oils** [*Tatlı Badem Yağı* (sweet almond oil)]; **sodas** [*Idris Müshil Gazozu* (laxative soda, 1941)] were produced in Idris Yaybulak Pharmaceuticals Laboratory. Besides of these, *Galinal* (scabies medicine, 1944), *Kopiline* (hair medicine) and *Devakin* (1949) were also among the medicines produced there. The pharmaceutical formulation of other pharmacists or doctors were also produced in this laboratory, e.g. *Karbolaksin Komprimeleri* (Karbolaksin Tablets) of Pharm. Karakin Kürkcüyan and *Mentokal pastil ve Neutrachine tablet* of Dr. İbrahim Denker [20]. Advertisements from the 1950s onward indicate his intention to manufacture a wide variety of vitamin formulations. The photos of some pharmaceuticals can be seen at Figures 3 and 4. Some of Idris Yaybulak'

² The years associated with these products denote the recognized year of their production.

products (Asepitin, Deva, Fedrinal, Fortobin, Karbolaksin, Laksin Idris, Urosud) were famous and their production continued in Devakin Laboratory after closing Idris Yaybulak Pharmaceuticals Laboratory in 1965 [8].



Figure 3. Üro-Sud (Uro-Sud, Uro-Soude) - a flask (a) [18]; a flask (b) [8]; a flask and package (c) [19] (ci: front side of the package; cii: flaps of the package - "against stones and sand in the kidneys, liver, bladder, sciatica, gout and arteriosclerosis"; ciii: back side of the package - "Due to the chemical composition and physiological effects of Uro-Sud; It is recommended by specialist physicians with experience to be used in diathesis uric, gout, arthritis, rheumatism, sciatica, liver, kidney, dissolution of sand and stones in the bladder, phosphaturia, bladder inflammation and especially atherosclerosis, skin and diabetes diseases"; civ: lateral side of the package).



Figure 4. A glass flask for liquid preparations (a) and Ampul Riboflavine Idris Forte (b) [8]; Panoton - "It is the only preparation for general weakness, anemia and loss of appetite." (c), Ergotine Ampoules (d) and Sulfat dö Kinin (e) (ei: front side of its metal package, eii: back side of its package) [19].

Yaybulak, realizing the importance of information as well as knowledge in order to reach and help the large population, advertised and promoted his pharmaceutical products (Figures 5-7a) and activities (such as the free distribution of his formulary) through announcements and advertisements in various publishing organs such as pharmacy journals, newspapers and also in his formulary. He gave advertisements of his pharmaceutical preparations and published announcements about the distribution of İdris' Formulary in the pharmacy journal *Farmakoloğ* (Figure 8) [6,10-16].

Figure 5. The advertisements of his products in the journal *Farmakoloğ* in 1941 (a), 1943a (b) and 1943b (c) [10-12].

Figure 6. The advertisements of his products in the journal *Farmakoloğ* in 1948 (a), 1951 (b) and 1952 (c) [13-15].

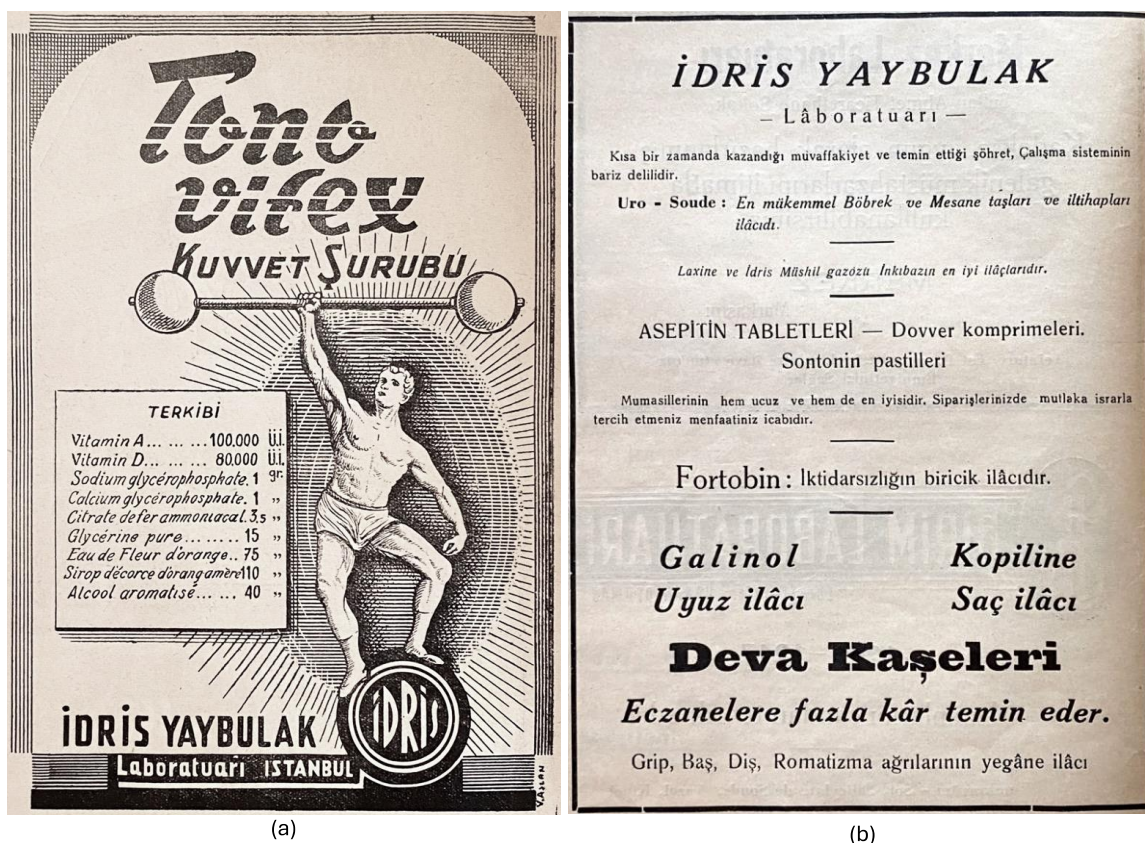


Figure 7. An advertisements of his products in the journal *Farmakoloğ* in 1953 (a); an advertisement in student yearbook 1946-1947 (b) [16,17].

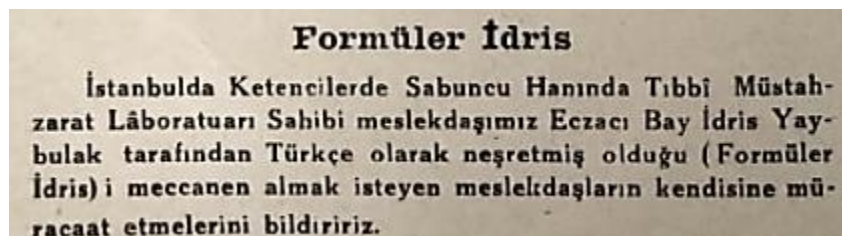


Figure 8. An announcement about the distribution of Idris' Formulary - in the journal *Farmakoloğ* 1941 ("We would like to inform the colleagues who wish to receive free of charge the Idris' Formulary published in Turkish by Pharmacist Mr. Idris Yaybulak, to apply to him, the owner of the pharmaceutical laboratory in Sabuncu Han in Ketenciler -Istanbul.") [10].

From the advertisements at newspapers and journals, it is possible to learn the informations about his products, such as their indications, dosages, package form. In Figure 9, an advertisement of Üro-Sud in the newspaper *Cumhuriyet* (1956) is given. It was written that "Dear doctors and pharmacists - Üro-Sud - effervescent granule - handed out abundantly to the pharmaceutical warehouses - Yaybulak Pharmaceuticals Laboratory" [21]. By comparing the Uro-Soude Effervescent Granule (Figure 3) with the Uro-Soude Effervescent in the advertisements (Figures 10a-b), it is noteworthy that the bottles and packaging of the two products are different. Additionally, it is also possible to see their advertisements in student yearbooks, in various publications and also on his business card (Figures 7b, 10c) [17,19]. He aimed to promote his products by advertising not only in pharmaceutical publications but also in publications such as books on medicine, e.g. the advertisement in the book *Cinsî Hayatta Bozukluklar ve Tedavi Çareleri*³ (Fig. 11) [19].

³ 'Cinsî Hayatta Bozukluklar ve Tedavi Çareleri' (Disorders in Sexual Life and Solutions for Treatment) written by Dr. Richard Schauer and translated by Dr. Ekrem Akman

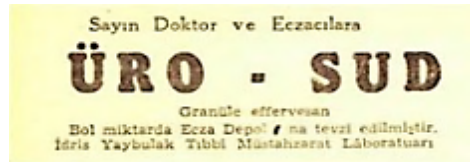


Figure 9. An advertisement of Üro-Sud in the newspaper 'Cumhuriyet' (1956) [21].

ÜRO - SUD
EFFERVESAN

Fenni esaslara göre tesbih edilmiştir.

ÜRO - SUD : - Fizyoloji tesirleri itibarıyla, damar sertliği - ve Arteriyata, Diates Ürik, Gut; Romatizma; Siyatik; Karaciğer; Böbrek; Mesanede kum ve taşların inhihi (Pozitif); İdrar yolu darlığı; ve idrarın çoğalmasında; Cilt ve Şeker hastalıklarının hastaya esassî tedavisinde; m ü t e h a s s î etibha tarafından biltilmektedir, ehemmiyetle tavsiye edilmektedir.

SURETİ İSTİMALİ:

Günde 2 veya 3 defa yemek arasında yahut yemekten sonra, bir tatlı kaşığı ÜRO - SUD yarım bardak suda eritilerek içilir.

ÜRO - SOUDE
EFFERVESCENT
Dissolvant de l'acide urique

KARBOLAKSİN

Mürekkep karbon komprimeleri
Harsak denemek için

Mamait inkışatlar, tılsu şımanlık ve şımanlıkta mütevellit rahatsızlıklara karşı en müessir ilâçtır.

100 Tabletlük Kutu 200 Kuruyar — Her Eczanede Bulunur.
İdris Yaybulak Laboratuvarı — İstanbul

(a)

ÜRO - SUD
EFFERVESAN

Üro - Sud'un kimyevi terekibine ve tesirine nazaran Fizyoloji tesir itibarıyla aşağıdaki hastalıklarda ve durumlarda ağıdılır.

Bu ilâçlarda ki mütevellit etibha tarafından bu vak'alarda ehemmiyetle tavsiye edilmektedir.

Diates Ürik, Gut, Arteriyata, Romatizma, Siyatik, Karaciğer, Böbrek, Mesanede kum ve taşların inhihi, Pozitif, İdrarın çoğalmasında, Mesane iltihali ve şımanlık Damar sertliği, Cilt, Şeker hastalıkları.

SURETİ İSTİMALİ:

Günde 2 veya 3 defa yemek arasında yahut yemekten sonra, bir tatlı kaşığı Üro-Sud yarım bardak suda eritilerek içilir.

Gastriyel olduğunda içini pek lâtif ve hafız dahi kolaylaştırır.

ÜRO SOUDE est composé de:
Phosphate urique "Goudon" L'acide carbonique Gazéifié effervescent

Eczacı
İDRİS YAYBULAK
Tıbbi Müstahzarat Laboratuvarı
İstanbul, Ketenciler, Sabuncu Han Tel. 21195

FORTOBİN

Ademi iktidar ve bulgusuzluğuna karşı müessir müstahzar.

Fortobinin Tarkibi:
Phytin, Pepsine N, Vimentin, Chortyrate de Juhéon.

Sureti İstimali:
Doktorun tavsiyesine göre günde 3 tere alınabilir. Tabletler her vakit yemekten sonra alınır.

(b)

DEVA

ECZACI
İDRİS YAYBULAK
Tıbbi Müstahzarat Laboratuvarı
Ketenciler, Sabuncu Han
İSTANBUL
TELEFON : 21195

(I)

MÜSTAHZARATIMIZ

	Lira	Kuruş
DEVA Kaşeleri 100 lük kutu		
ASEPTİN Tüp Kilosu		
" Zarf "		
" Dokme "		
SANTONİN 0,005 gr. Pastil		
DOVER Komprime 0,20 gr. 10 Tüplük kutu		
SÜLFAT DO KİNİN 0,25 gr. Düzine		
" 0,25 " Kilosu		
İDRİS MÜSHİL HAPLARI 10 kutusu		
EDOLİN DİŞ MACUNU Büyük tüp		
" " Orta "		
" " Küçük "		

Laboratuvarımızda Meslekdaşlarımızın her nevi komprime siparişleri kabul olunur.

(c)

Figure 10. An advertisement of Üro-Sud Effervescent and Karbolaksin Tablets (Karbolaksin Komprimeleri) (a), an advertisement of Üro-Sud Effervescent and Fortobin (b) and Business card of Pharm. İdris Yaybulak (k) (cI: Its front side with an advertisement of Deva Kaşeleri, cII: Its back side with product list) [19].

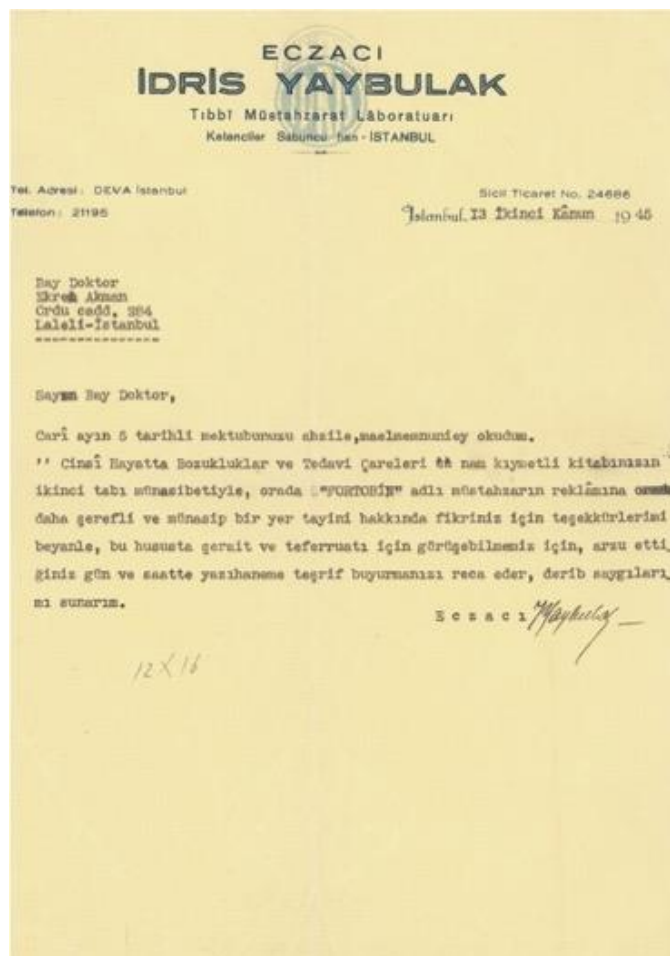


Figure 11. The letter to Dr. Ekrem Akman for finding it appropriate to include advertisements for his products in his translated book 'Disorders in Sexual Life and Solutions for Treatment' [19].

Pharm. Idris Yaybulak's products were in demand by his colleagues. One example was the *İki Kapılı Eczane* (Pharmacie *İki Kapoulou*, Pharmacy with Two Doors). This pharmacy was the first private pharmacy (the first modern pharmacy as it is known today), which was established in the middle of 18th century at the district of Bahçekapı [3]. The invoices for the years 1946-1952 showing that he sold his products to this pharmacy are shown in Figure 12 [19].



Figure 12. The invoices for the sale of its products to the pharmacy İki Kapılı Eczane [19].

He was one of the founders of *Türkiye Tıbbi Müstahzar Sanayi ve Laboratuvarları Cemiyeti* (Society of Pharmaceuticals Industry and Laboratories of Turkey), with other well-known Turkish pharmacists. It was established in 1951 to ensure and protect the development of the pharmaceutical preparations manufacturing and industry in Turkey (Address of the Association's Central Office: Ortaklar Han, No. 25, Istanbul). The founders of the Association consisted of eight laboratory owners, Cemil Tuna, Mustafa Pısak, Idris Yaybulak, Hasan Sarper, Nizameddin Talib, Hikmet Güneyman, Sami Sile, Münir Şahin. It was aimed to gather the pharmaceutical companies under one roof and to provide and also protect the development of the production and industry of pharmaceutical preparation, in Turkey [22,23].

2.3. Social Service Activities of Idris Yaybulak

Alongside his professional works, Idris Yaybulak took part in civil society and social service initiatives to serve people. He actively participated in the creation of the *Azeri Kardeşler Yardımlaşma Derneği* (Azerbaijani Fraternal Solidarity Association). Idris Yaybulak was one of its founders of this association, which was founded in 1948 in Istanbul (Ketenciler, Sabuncu Han number 23). He served as the president of the association until the inaugural board meeting. The founding purpose of the association was stated in its statute as follows: "The Association aims to furnish various forms of material and moral support to its members and to anyone deemed suitable by the Board of Directors. The Association avoids from engaging in politics under all circumstances."⁴ [24]. Pharm.Yaybulak's tenure as president of the association was brief. Indeed, Mehmet Sadık Aran presided over the 1954 assembly. The congress report indicates that the association has been involved in significant social service initiatives⁵ funded by the profits it has produced since its inception [25]. Yaybulak's contributions to social assistance and cultural initiatives indicate his sensitivity to social welfare matters. His dedication to social service and development is demonstrated by the establishment of employment opportunities for women. The employment chances he offered to women in his workplace during that period exemplify positive discrimination in favor of women. In a 1951 article in the newspaper *Cumhuriyet* (Figure 13), he declared the recruitment of women under the designation 'worker girls' for positions in the packaging department [26].



Figure 13. An announcement about hiring women with the title "worker girls will be recruited" to be employed for packaging department, in the newspaper '*Cumhuriyet*' [25].

Idris Yaybulak was also involved in politics and sought to solve societal issues. Following the 1955 local elections, he was elected to the Istanbul Provincial General Assembly representing the Democratic Party and served as a substitute member of the Standing Commission [27]. His business card from that period indicates that he was a member of the Provincial General Assembly (Fig. 14).

⁴ The association attracted the attention of Mehmet Emin Resulzade, one of the leading figures of the Azerbaijani national struggle in those years, and he visited the headquarters of the association in Istanbul upon the invitation of the association officials. Later, he stated that he saw the Azerbaijan Culture Association in Ankara and the Azeri Brothers Solidarity Association in Istanbul as social organizations supporting the '*Milli Merkez*' (National Center). '*Milli Merkez*' was the organization founded by Mehmet Emin Resulzade in order to ensure the political unity of Azerbaijani Turks who came to Turkey after the Russian oppression and gathered in Istanbul [25].

⁵ Among these services were financial aid to needy members, providing 1,000 sets of clothes from the Turkish Red Crescent Society and distributing them to poor members, organizing cultural conferences and performances, and providing free medical services for the patients. During the congress in 1954, the association name was changed to '*Azerbaycan Yardımlaşma Derneği*' (Azerbaijan Solidarity Association). In 1958, the association met with another Azerbaijani association, '*Azerbaycan Kültürünü Tanıtma Derneği*' (Azerbaijan Culture Promotion Association) and announced its decision to work together in all works and initiatives with a joint text. According to this joint text, the two associations decided to cooperate on national, social and cultural issues of Azerbaijan. Among the activities of the aforementioned associations, the meetings can be counted, which were held on May 28, Independence Day, and April 27, Invasion Day, referring to the establishment and termination days of the Azerbaijani National Government, which had a political life between May 28, 1918, and April 27, 1920 and ceased to exist with the intervention of Soviet Russia [25].



Figure 14. The business card from the period when he was a member of the Provincial General Assembly [19].

Yaybulak made an effort to assist not just individuals in need within Türkiye, but also people in numerous countries globally, such as Algerian refugees), to the best of his capacity. Similar to several international organizations, the *Kızılay* (Turkish Red Crescent) sent food, medical supplies, and financial assistance on four occasions to Algerian refugees in Tunisia and Morocco, who were striving for independence from prolonged French colonial rule in Algeria [28,29]. İdris Yaybulak was among of those who rendered aid from Turkey. In 1961, Yaybulak promptly answered the Red Crescent's request to local pharmaceutical companies for assistance Algerian refugees. İdris Yaybulak's laboratory was one of the twelve companies that supplied a total of 78 different pharmaceuticals (Figure 15) [30]. Consequently, it is evident that his laboratory served not merely as a pharmaceutical production facility; it also significantly impacted the lives of young women and vulnerable individuals.



Figure 15. Newspaper article about the medication and sugar help of 'Kızılay' (Turkish Red Crescent) with the aids from the Turkish pharmaceutical industry [30].

3. CONCLUSION

In addition to providing pharmacy counseling to patients in his pharmacy, Pharm. İdris Yaybulak also contributed to health care by producing various pharmaceuticals and products in his laboratory. He also took initiatives to benefit his colleagues. For the production of pharmaceuticals, he gathered information from various reference sources and blended it with his own knowledge and provided the formulas to his

colleagues free of charge. His formulary was the first formulary written in Turkish with Latin alphabet. It can be realized that, Pharm. Yaybulak believed the power of the collaborations between pharmacists to solve problems and conflicts. He also tried to help pharmacists for simplifying the complex pharmacy practices and did many works to obtain standardisation and quality system, in Turkey. In addition to his social and professional contributions, he supported Turkey's professional and economic development in many ways by providing health services from his pharmacy and later his laboratory.

4. MATERIALS AND METHODS

In this study, beside of the newspaper archive documents (*Cumhuriyet* and *Milliyet*), materials, periodicals, journals and books searched in the e-databases and existing in Turkish History of Pharmacy Research Museum, Istanbul University, were used. In addition, it was made use of the collections of Pharm. Gülnur Sandalcı, Eng. Mert Sandalcı, Pharm. Nezih Barut and Assoc. Prof. Dr. Pharm. Burcu Sen.

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Conflict of interest statement: The authors declared no conflict of interest.

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