Prethodno priopćenje

# THE FIRST WOMEN PHYSICIANS IN THE HISTORY OF MODERN GREEK MEDICINE: MARIA KALAPOTHAKES (1859-1941) AND ANGÉLIQUE PANAYOTATOU (1878-1954)

PRVE LIJEČNICE U POVIJESTI MODERNE GRČKE MEDICINE: MARIA KALAPOTHAKES (1859. – 1941.) I ANGÉLIQUE PANAYOTATOU (1878. – 1954.)

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#### Summary

In an era when medicine in Greece was dominated by men, at the end of the 19<sup>th</sup> and during the first decades of 20<sup>th</sup> century, two women, Maria Kalapothakes [in Greek: Μαρία Καλαποθάκη] (1859-1941) and Angélique Panayotatou [in Greek: Αγγελική Παναγιωτάτου] (1878-1954), managed to stand out and contribute to the evolution of medicine. Maria Kalapothakes received medical education in Paris and then she returned to Greece. Not only did she contribute to several fields of medicine, but also exercised charity and even undertook the task of treating war victims on many occasions. Angélique Panayotatou studied medicine at the University of Athens and then moved to Alexandria in Egypt, where she specialized in tropical medicine and also engaged in literature. Panayotatou became the first female professor of the Medical School of Athens and the first female member of the Academy of Athens. In recognition for their contributions, Kalapothakes and Panayotatou received medals and honors for both their scientific work and social engagement.

Keywords: Women physician, Kalapothakes, Panayotatou, Modern Greek Medicine

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### Introduction

The Greek civilization is inextricably connected to the foundation and the growth of medical science since antiquity. Women have played an important role in these processes ever since the era of Asclepius, the god of medicine in ancient Greece. His daughter, Hygeia, from the Greek word for "health", was the impersonation of wellbeing and her sisters, Panacea, Iaso, Akeso and Aegle, had also healing abilities. Women served in various medical positions in Greco-Roman antiquity such as physicians (iatrinai), midwives (maiai) and iatro-maiai (physicians-midwives). The most prominent among them were Aspasia (ca. 4th century AD) and Cleopatra Metrodora (ca. 7th century AD, or 2nd century AD) who excelled in surgery and gynecology.<sup>1</sup>

However, in the following centuries and especially during the period of Ottoman rule (1453-1821) in Greece, women were almost excluded from medicine. This state did not change even after the Greek revolution, as medicine remained a man-dominated science until the dawn of the 20<sup>th</sup> century. It was at the end of the 19<sup>th</sup> century that women in Greece would fight for their independence and their right to academic education. Consequently, women were able to establish their position in medicine in Greece at last and officially offer medical services to patients. The first women to accomplish that were Maria Kalapothakes and Angélique Panayotatou, who were the first officially recognized physicians in modern Greece.<sup>2</sup>

# Maria Kalapothakes [Μαρία Καλαποθάκη] (1859-1941): The first female physician in Greece

Maria Kalapothakes was born in Athens in 1859. Her father was Michael Kalapothakes and her mother was Martha Hooper Blackler (1830-1871), a protestant missionary from Massachusetts, USA. Her father, Michail Kalapothakes (1825-1911), a native of Areopolis, a town in the Mani Peninsula, Laconia, Greece, was originally a teacher, who abandoned his job, studied medicine and became a military surgeon. He also studied theology at the Columbia University in New York. Kalapothakes, as well as, his daughter Maria and others members of his family, were Christian Orthodox like almost all Greeks of their era. However, Kalapothakes' family converted to

Tsoucalas, Gregory (2012), Women physicians in ancient Greece and Byzantium, [PhD thesis, in Greek], Athens, Greece; National and Kapodistrian University of Athens, Medical School.

Ziogou-Karastergiou, Sidiroula (1988), Women's Higher Education in Greece (1830-1893) [In Greek], Athens; Historical Archive of Greek Youth.

Evangelicalism, a movement within Protestant Christianity emphasizing on spreading the gospel through mission work globally. Michail Kalapothakes returned to Greece to establish branches of the Evangelical Church (1874) and became head of the Greek Evangelical church.<sup>3</sup>

As a child, Maria loved medical science. A specific fact though intrigued her interest even more. During her father's visits in Areopolis, as a surgeon, many disabled people visited him in order to be treated. A man, who was injured by a bullet during a vendetta (a long-running fight between social groups of people which plagued Mani during the past), was transferred to his house. Her father took out the bullet, but then the man killed the one that had shot him, seeking revenge.<sup>4</sup>

In 1871, Kalapothakes's father died and she returned to the United States. Few years later she came back to Athens where she graduated from a Greek high school. She shortly returned to the United States and enrolled at the Harvard Annex (now College Radcliffe), taking the upper class of Greek. Before returning to Athens, she got permission to follow the nurses during their visit to the Massachusetts General Hospital, to get an idea of the hospital training and to see if she could handle working in hospital and facing medical issues every day.<sup>5</sup>

In the early 1880s, Athens was still very conservative as far as women's education was concerned. Therefore, the University of Athens, founded in 1837, still faced problems with higher education for women. Maria Kalapothakes went to Paris for medical education. She was accepted in the Medical School of Paris in October 1886, since her previous studies received the recognition and equivalence with the French Baccalaureate. From then and for the next 8 years, she enjoyed equal rights and privileges as men in the amphitheater, in laboratories, in anatomy classes, in the wards of hospitals, and in the operating theatre. Over the years, while cooperating with some of the most important clinicians and surgeons in Paris, she felt an inclination for surgery and gynecology. Having in mind the needs of Greece however, she gave her attention to diseases of children and her Ph.D. thesis was about the problems and damage in chronic gastrointestinal dysfunctions of infants, followed by

<sup>&</sup>lt;sup>3</sup> Tsevas, Ioannis (2012), The life and work of Maria Kalapothakes [In Greek], Ethikos Kirikas, 51, pp. 4-12.

<sup>&</sup>lt;sup>4</sup> Tsevas, I. (2012), pp. 4-12.

<sup>&</sup>lt;sup>5</sup> Ibid., pp. 4-12.

Tzanaki, Demetra (2009), Women and Nationalism in the Making of Modern Greece, Oxford; Palgrave Macmillan, pp. 147-152.

<sup>&</sup>lt;sup>7</sup> Marketos, Spyros et al. (1991), Women in medicine part I, Mat. Med Gr, 19, pp. 269-275.

a monograph research based on the development of gastric glands in fetuses from the sixth month until birth. She returned to Athens in 1894 and after passing the oral and written exams for her medical license provided by the Medical School at the University of Athens, she began her specialization in general medicine. As the first female physician in Greece, she participated in the "Enosis Hellenidon" ("Association of Greek Women"), a charitable association founded by Kalliroi Parren (1861-1940), a renowned Greek feminist and women's right activist. She participated in the "Enosis Hellenidon" ("Association of Greek Women"), a charitable association founded by Kalliroi Parren (1861-1940), a renowned Greek feminist and women's right activist.

The outbreak of the Greco-Turkish War of 1897 found response to the pioneering women physicians who participated in the Association. At that time, Queen Olga of Greece (1851-1926), who founded "Evangelismos" hospital in Athens in 1884, announced that volunteer nurses were needed for the care of the injured soldiers and the war victims. Maria Kalapothakes offered to train the volunteer nurses, with the help of four medical students. The training was intensive, with daily lessons and demonstrations in front of a crowded audience that consisted of women of various ages and classes, and special education was given to those who showed special ability for greater responsibilities. Maria Kalapothakes received a silver medal by Queen Olga in the summer of 1899, as recognition of her hard and selfless work. 10

In 1898, the "Enosis Hellenidon" split its activities into two sectors; hygiene and nursing. Kalapothakes was appointed by the association as a president, in order to found a clinic for women and children. The clinic was also specialized in the training of nurses; it was equipped with the remainings from naval hospitals and dealt in particular with the problems of public health and the care and prevention of tuberculosis. Kalapothakes supported the research for the treatment of tuberculosis. <sup>12</sup>

During that period, George Koromilas, privatdozent at the Medical School of Athens, initiated a method for the treatment of tuberculosis by inhalation of sulphide of carbon. However, his method met with opposition from the medical community in Athens based on its potential dangerous side effects.<sup>13</sup> Kalapothakes offered a department of her clinic to Dr. Koromilas

<sup>8</sup> Kalopothakes Hooper Blackler, Maria (1894), Troubles et lésions gastriques dans la dyspepsie gastro-intestinale chronique des nourrissons, Thèse, Paris; Faculté de Médecine.

Oromilas, Georges (1892), Traitement de la tuberculose pulmonaire au moyen d'inhalation de sulphure de carbone, Paris; Deux Frères.

<sup>&</sup>lt;sup>10</sup> Ibid., pp. 4-12.

<sup>&</sup>lt;sup>11</sup> Tzanaki, D. (2009), pp. 147-152.

<sup>&</sup>lt;sup>12</sup> Ibid., pp. 147-152.

<sup>&</sup>lt;sup>13</sup> Coromilas, G. (1892).

for the conduction of a clinical trial for two years. The results in the first and the second stage of the disease were encouraging. During her participation in the first Panhellenic Medical Congress, in 1901, Kalapothakes delivered brochures to other participants, so as to inform her colleagues about the prevention, the treatment and the fight against tuberculosis.<sup>14</sup>

Furthermore, Kalapothakes was also appointed professor of hygiene in the Arsakeion high school, a school established in 1836 for the education of Greek girls administered by the non-profit organization "Society of the Friends of Education". There she completed her work concerning the hygiene in schools, published a handbook entitled "Information for health teaching in schools" (1912) and founded the monthly magazine "Health" (Figure 1).15



Figure 1. On the left, the pioneer physician and an activist for women rights Maria Kalapothakes (1859-1941).

In 1906, the International Council of Women established a department in Greece. Kalapothakes was appointed secretary for the first three years and participated in the International conference of the Council which was held in Toronto. 16, 17 During the Balkan Wars (1912-1913), Kalapothakes stood out for her medical services to war victims in Epirus. Her offer remained legendary, as according to a testimony "she operated in mountain hospitals and worked continuously like three men". 18 The humanitarian work of Maria Kalapothakes did not stop there, as she helped several hundred thousand Greek refugees that came to Greece after the Great Fire or the Catastrophe of Smyrna in 1922. Last, but not least, she dealt with the establishment of a

Vladimiros, Lazaros, Frangides Christos (2002). The first Greek Medical Congress: one century ago, Arch Hellen, 19, pp. 700-709.

<sup>&</sup>lt;sup>15</sup> Ibid., pp. 4-12.

Kalapothakes, Maria (1910), The National league of Greek Women, Ladies' Journal, 24, pp. 1290-1292.

Schirmacher, Kaethe (1912), The Modern Woman's Rights Movement: A Historical Survey, New York; MacMillan.

<sup>&</sup>lt;sup>18</sup> Ibid., pp. 4-12.

small hospital in Piraeus as a first aid station for the refugees coming from Smyrna.<sup>19</sup>

Kalapothakes passed away in January 1941, being totally poor, since not only had she treated poor patients pro bono, but she had also bought the drugs that they needed.<sup>20</sup> She was an example of humanitarian physician and she also believed that medicine was above all a selfless profession. Apart from being the first physician in Greece, she also stood out for her character, her education as well as for her writings in the fields of hygiene, religious poetry and translation.

# Angélique Panayotatou [Αγγελική Παναγιωτάτου] (1878–1954): The first woman graduate from the Medical school of Athens

Angélique Panayotatou (1878–1954) was born in the town of Thinia, on the island of Cephalonia in 1878. Angélique and her sister, Alexandra (1876-1903/4), were raised in a prosperous family, as her mother was of aristocratic descent, while her father was a very successful businessman. The family, despite the contemporary notion, turned its daughters towards academic achievement. The two sisters begun attending school in Cephalonia and later they continued their studies in Corfu, where they were taught foreign languages and piano. In order to pursuit further education, they moved to Athens and they attended the Arsakeion Gymnasium.<sup>21</sup>

Academic excellence was a permanent characteristic for the two sisters and this was perhaps the reason why they wished to study medicine at the Medical School of Athens. However, there was a problem. It was necessary to pass a certain examination so as to be accepted into university and this test was conducted only in male schools. Yet, this hurdle was not sufficient to hinder the two sisters. Angélique personally studied the concerning pieces of legislation and found no strict decree, which forbade women to attend university. So Angélique and Alexandra were admitted into the Medical School of Athens in 1893. <sup>22, 23</sup> Their studies were not free from troubles and difficul-

<sup>&</sup>lt;sup>19</sup> Ibid., pp. 4-12.

<sup>&</sup>lt;sup>20</sup> Ibid., pp. 4-12.

Rizopoulos, Andreas, Vladimiros, Lazaros (1992), The first Greek women physicians, Mat. Med. G., 20:379-381

Poulakou-Rebelakou, Effie (2008), Real and imaginative medical students in Athenian literature (1850–1910), Archives of Hellenic Medicine, 25, pp. 673-684.

Marketos, Spyros (2005), Angélique Panayotatou (1878-1954): The first woman professor of Medical School of Athens [In Greek], Odysseia.

ties, as they were frequently scorned because of their gender. Specifically, male students urged Angélique and Alexandra to go "to the kitchen" and stamped their feet on the ground every time they entered the amphitheater.<sup>24</sup> Nonetheless, the Panayotatou sisters were not discouraged and they graduated in 1897. It is worth mentioning that their graduation did not pass unnoticed from the conservative society of Athens at the end of the 19<sup>th</sup> century and this is depicted in the comment of Professor Antonios Chrystomanos (1871-1933), who was the Dean of Medical School of Athens at the time and stated that it was in vain to oppose to the emancipation of women and that men should tolerate women and not hinder their attempts to study physical sciences but neither should they encourage them.<sup>25</sup>

In spite of the unfriendly environment, Angélique managed to win the respect of many of her fellow students, as well as, several prominent Greek physicians among which Dr. Stephanos Kartulis (1852-1920), known for his work on parasitology, practicing in Alexandria, Egypt.<sup>26</sup> Financial difficulties and the wish of Angélique to specialize further led her to Alexandria, in 1900.<sup>27</sup> There she was able to study microbiology and to begin her post-graduate studies. Furthermore, after passing a special examination and thanks to a letter of recommendation from Dr. Kartulis, she was appointed to the hospital of Alexandria in the sector of hygiene. <sup>28</sup> Angélique studied tropical diseases and she published two essays, one on cholera and another one on the plague.<sup>29</sup> For these works she was awarded by the Egyptian Government with the Medal of the Order of the Nile in 1902. In addition and because she was a woman, she was allowed to visit the harems, so as to study ailments and sexually transmitted diseases. Panayotatou however did not stop there. She specialized further in tropical diseases in the Pasteur Institute of Paris and during a congress; she made a presentation on the subject of infections from Entamoeba and its possible localization outside the enteric tract. For this presentation, she was awarded by the French Academy of Sciences. After returning to Alexandria, Angélique published many essays and consequently

<sup>&</sup>lt;sup>24</sup> Marketos, S (2005), pp. 269-275.

<sup>&</sup>lt;sup>25</sup> Ibid., pp. 269-275.

<sup>&</sup>lt;sup>26</sup> Kartulis, Stephanos (1886), Zur Aetiologie der Dysenterie in Aegypten, Virchows Arch. path. Anat, 105, pp. 521-531.

<sup>&</sup>lt;sup>27</sup> Cangelaris, Panagiotis (1991), Angélique Panayotatou - Kate Cangellaris, Two Cephalonian Ladies in Alexandria and their Literary Salons. Proceedings of the 5th International Panionian Conference, Argostoli, Cephalonia, Greece, pp. 361-366.

<sup>&</sup>lt;sup>28</sup> Cangelaris, P (1991), pp. 361-366.

<sup>&</sup>lt;sup>29</sup> Panayotatou, Angélique (1951). The struggle of my life, [In Greek], Alexandria, Egypt; Emporio.



Figure 2. The distinguished physician Angélique Panayotatou (1878–1954) in her laboratory in Alexandria, Egypt.

received worldwide recognition (Figure 2).<sup>30</sup>

During her stay in Egypt, Angélique Panayotatou did not limit to medicine; she was also socially active, serving in several charitable organizations, focusing to the education of Greek diaspora girls; she was advisor in the "Benakeion Orphanage", she founded "the Sunday school for Greek girls" and the "National

association of Greek-Egyptian women", in an attempt to provide education for working girls and summer camps to poor women. Furthermore, she was an active member of the Hellenic Scientific Association "Ptolemy I" of Alexandria (a vice-president and a president), and organized scientific meetings and events. In her testament, she donated her house to the Greek Community of Alexandria, where several scientific lectures have been taking place till nowadays.<sup>31</sup>

Despite her scientific contribution, Panayotatou was also interested in literature and poetry. She even published, under an alias, a book entitled: "Before the wonders of the Pharaohs" and in 1934, she founded the first Greek literary salon in Alexandria, the "Philological society of Greek women of Alexandria" which remained active till her death.<sup>32</sup>

In 1908 Angélique Panayotatou returned to Athens in order to assume the rank of a lecturer in the Laboratory of Hygiene at the Medical School of Athens. During her first lecture, the students scorned and mocked her because she yet again stepped into "a domain strictly for men". This behavior angered the Prime Minister, Eleftherios Venizelos (1864-1936), who was also present and at the end of the lecture he publicly supported Panayotatou, by characterizing her as a wise teacher. 34

Panayotatou, A (1951).

Tomara-Sideri, Matoula (2009), Women's status in the Greek colonies of Egypt, In: Tastsoglou, Evangelia (eds), Women, gender, and diasporic lives: Labor, community and identity in Greek migrations. Lanham, MD; Lexington Book.

<sup>32</sup> Tomara-Sideri, M (2009).

<sup>&</sup>lt;sup>33</sup> Ibid., Panayotatou A.

<sup>&</sup>lt;sup>34</sup> Ibid., pp. 269-275.

Angélique Panayotatou's bright career was advancing continuously until the end of her life. In 1938 she became the first Deputy Professor of Hygiene and Tropical Medicine in Greece, in 1947 she secured the position of the honorary Professor at the Medical School of Athens and finally, in 1950 she became the first female member of the Academy of Athens.<sup>35</sup> Angélique Panayotatou passed away in Alexandria in 1954 having contributed much to the progress of medicine and to social justice.

# Conclusion

Maria Kalapothakes and Angélique Panayotatou were not only the first women physicians in the history of Modern Greek Medicine, but also the pioneers who defended women's equal rights in education at university. Their medical work is accurate and admirable until nowadays. Kalapothakes focused on aiding the people in need and her behavior was deeply affected by her religion, as she was a faithful Evangelist. On the other hand, Panayotatou was interested in culture and she participated in various social activities. However, both of them stood out for the integrity of their character, their selflessness and their spiritual activities. They are, therefore, an example for female doctors and for the entire medical community.

## References

- Cangelaris, Panagiotis (1991), Angélique Panayotatou Kate Cangellaris, Two Cephalonian Ladies in Alexandria and their Literary Salons. Proceedings of the 5th International Panionian Conference, Argostoli, Cephalonia, Greece, pp. 361-366.
- 2. Coromilas, Georges (1892), Traitement de la tuberculose pulmonaire au moyen d'inhalation de sulphure de carbone, Paris; Deux Frères.
- 3. Ziogou-Karastergiou, Sidiroula (1988), Women's Higher Education in Greece (1830-1893) [In Greek], Athens; Historical Archive of Greek Youth.
- 4. Kalapothakes, Maria (1910), The national league of Greek Women, Ladies' Journal, 24, pp. 1290-1292.
- 5. Kalopothakes Hooper Blackler, Maria (1894), Troubles et lésions gastriques dans la dyspepsie gastro-intestinale chronique des nourrissons, Thèse, Paris; Faculté de Médecine.
- 6. Kartulis, Stephanos (1886), Zur Aetiologie der Dysenterie in Aegypten, Virchows Arch. path. Anat, 105, pp. 521-531.

<sup>&</sup>lt;sup>35</sup> Ibid., Panayotatou, A.

- 7. Marketos, Spyros et al. (1991), Women in medicine part I, Mat. Med Gr, 19, pp. 269-275.
- 8. Marketos, Spyros (2005), Angélique Panayotatou (1878-1954): The first woman professor of Medical School of Athens [In Greek], Odysseia.
- 9. Panayotatou, Angélique (1951). The struggle of my life, [In Greek], Alexandria, Egypt; Emporio.
- 10. Poulakou-Rebelakou, Effie (2008), Real and imaginative medical students in Athenian literature (1850–1910), Archives of Hellenic Medicine, 25, pp. 673-684.
- 11. Rizopoulos, Andreas, Vladimiros, Lazaros (1992), The first Greek women physicians, Mat. Med. G., 20:379-381.
- 12. Schirmacher, Kaethe (1912), The Modern Woman's Rights Movement: A Historical Survey, New York; MacMillan.
- 13. Tomara-Sideri, Matoula (2009), Women's status in the Greek colonies of Egypt, In: Tastsoglou, Evangelia (eds), Women, gender, and diasporic lives: Labor, community and identity in Greek migrations. Lanham, MD; Lexington Book.
- 14. Tsevas, Ioannis (2012), The life and work of Maria Kalapothakes [In Greek], Ethikos Kirikas, 51, pp. 4-12.
- Tsoucalas, Gregory (2012), Women physicians in ancient Greece and Byzantium, [PhD thesis, in Greek], Athens, Greece; National and Kapodistrian University of Athens, Medical School
- 16. Tzanaki, Demetra (2009), Women and Nationalism in the Making of Modern Greece, Oxford; Palgrave Macmillan, pp. 147-152.
- 17. Vladimiros, Lazaros, Frangides Christos (2002). The first Greek Medical Congress: one century ago, Arch Hellen, 19, pp. 700-709.

### Sažetak

U doba kada su u grčkoj medicini dominirali muškarci, krajem 19. i u prvim desetljećima 20. stoljeća, dvije žene, Maria Kalapothakes [na grčkom: Μαρία Καλαποθάκη] (1859. – 1941.) i Angélique Panayotatou [na grčkom: Αγγελική Παναγιωτάτου] (1878. – 1954.), uspjele su se istaknuti i pridonijeti razvoju medicine. Maria Kalapothakes stekla je medicinsko obrazovanje u Parizu, a nakon toga se vratila u Grčku. Ne samo da je pridonijela razvoju nekoliko različitih područja medicine već je sudjelovala i u humanitarnom radu te više puta liječila i žrtve rata. Angélique Panayotatou studirala je medicinu na Sveučilištu u Ateni. Nakon toga se preselila u Aleksandriju, Egipat, gdje je specijalizirala tropsku medicinu i bavila se književnošću. A. Panayotatou postala je prva žena profesorica na Medicinskom fakultetu u Ateni i prva članica Akademije u Ateni. M. Kalapothakes i A. Panayotatou dobitnice su medalja i počasti za svoj znanstveni rad i društveni angažman.

Ključne riječi: liječnice; Kalapothakes; Panayotatou; moderna grčka medicina