Review article

JOHN C. CARAPANAYIOTIS (1909–1999): THE GREEK RADIOLOGIST AND PIONEER OF PHYSIATRY IN GREECE

JOHN C. CARAPANAYIOTIS (1909. – 1999.): GRČKI RADIOLOG I PIONIR FIZIJATRIJE U GRČKOJ

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Summary

John C. Carapanayiotis was specialized in physical medicine and rehabilitation in the USA in 1948, at a time when the medical world in post-war Greece was ignorant of this specific medical specialty, and the political, economic and social backdrop was incapable of accepting and understanding the wealth of scientific knowledge that he was trying to introduce. At this point it should be noted that the specialty of Physical Medicine and Rehabilitation was established in Greece in 1973.

John C. Carapanayiotis was a member of the American Congress of Physical Medicine during the 1950's. In the same period, he expressed interest, on behalf of the New York University, in the establishment of a Physical Therapy Clinic in Greece, which would be granted unlimited funding by the Marshal Plan.

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His efforts clashed constantly with the backward mentality of his time, with the entrenched conservatism and with the bureaucratic red tape. Unfortunately, he was far ahead of his time and was condemned to the same fate as all other visionaries and pioneers in the way that his knowledge and scientific background were not put into practice for decades to come.

Keywords: physiatrist; physical medicine and rehabilitation; history; Greece.

INTRODUCTION

The term *physiatry* derives from the Greek words φυσικός (physical) and ιατρική (art of healing). A *physiatrist* is a physician who creatively employs physical agents as well as other therapeutics techniques to help in the healing and rehabilitation of a patient. During World War I, empirical trials indicated that various physical methods (such as massage, exercise, electrical stimulation, diathermy, etc.) were useful to augment medical care and convalescence of patients¹.

It is noteworthy that the first society of physicians to use physical means was established in the USA in 1923. This gradually evolved into the American Congress of Physical Medicine in 1945, which eventually, in 1966, became the American Congress of Rehabilitation Medicine².

A formal education in physiatry began in 1926 when John Stanley Coulter (1885-1949) joined the Northwestern University Medical School as the first full-time academic physician in physical medicine. Frank H. Krusen (1898-1973) established the Physical Medicine Program at the Mayo Clinic in 1936 and initiated the first three-year residency in Physical Medicine¹.

The Greek government, at the beginning of the previous century, and as a result of the Balkan Wars, World War I and the Asia Minor Campaign, created a basic health care system by setting up the Ministry of Health and Social Services. At that time, medical science did not require much specialization, which frequently resulted in doctors practicing, based on their interests and on the needs that each area required³.

The specialty of Physical Medicine and Rehabilitation was not established by law in Greece until 1973, and the Hellenic Society of Physical Medicine and Rehabilitation was established one year later. The founding members of the newly-established Society were Georgios Karandonis, Dimitrios Gianakikos, Dimitrios Roumeliotis, Panagiotis Kondoulakos and Xanthi Michail³.

The pioneer Greek physiatrist

From the evidence known up to this day, the first Greek physical and rehabilitation medicine specialists were trained abroad in the early 60's, but from research conducted by the writers, evidence came to light which verifies that John C. Carapanayiotis specialized in physical medicine already in the USA in 1948^{4,5,6}.

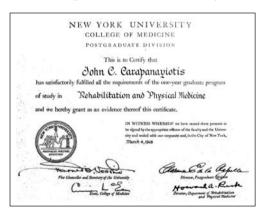
John Carapanayiotis was born in the Peloponnesian town of Zacharo in the Prefecture of Ilia in 1909. He was the son of Physician Constantinos Carapanayiotis and Iphigenia Kanellopoulou. He completed elementary school in 1921 and high school in 1927. That same year he enrolled in the Medical School of the National and Kapodistrian University of Athens, from which he graduated on February 10th 1932.

From 1933 to 1940, he spent his summers serving as a doctor at the thermal spas of Killini in the Peloponnese, which were famous for their therapeutic effects of the respiratory system affections. During World War II he served at the hospital in the Peloponnesian town of Nafplio, followed by a private hydrotherapeutic center in Athens.

His passion and love for physical means led him to decide to travel to the USA, where he was originally specialized in radiology followed by two years (1948-1950) of post-graduate studies in Physical Medicine and Rehabilitation at the New York University's Bellview Hospital. On February 16th 1948, he

was selected by the New York University to deliver a speech at the United Nations on the subject of Physical Medicine and Rehabilitation. For this speech he was commended in writing by Professor Howard A. Rusk.

Howard Archibald Rusk (1901-1989) is considered the father of comprehensive rehabilitation medicine, and he is also the founder of the Institute of Rehabilitation Medicine at the New York University Medical Center⁷.



His Diploma in Rehabilitation and Physical Medicine from the University of New York, March 4, 1948, signed by the Director of the Department of Rehabilitation and Physical (Natural) Medicine: Howard Archibald Rusk.



John Carapanayiotis, during his speech on Physical Medicine and Rehabilitation at the United Nations in 1948.

John Carapanayiotis was a member of the American Congress of Physical Medicine during the 1950's. From 1947, in order to become a member of the American Congress of Physical Medicine, it was needed to pass both a written and an oral exam.

Although J. Carapanayiotis' studies abroad would have al-

lowed him a brilliant career in a big city or even in Athens where he had completed his studies, his love for his birthplace led him to return to his native region and to generously offer his knowledge and experience to his fellow countrymen. So in 1950, he returned to Zaharo and set up a Radiology Laboratory on Anagnostopoulou Street where he practiced as a radiologist, physiatrist, general practitioner and balneologist. His practice was equipped with an X-ray unit from the Picker firm and diathermy machines from the Burdick firm, which he brought with him upon his return from the United States.

He served for a number of years as a state Balneologist in Greek spa towns and especially in the thermal bath towns of Killini and Kaiafa in the Peloponnese. Being able to look far into the future, he envisioned and set as his life's goal the development and modernization of the thermal spa in the hope that they would become as organized and popular as those abroad.

In 1950, he expressed interest, on behalf of the New York University, in the establishment of a physical therapy clinic in Greece, which would be granted unlimited funding by the Marshal Plan. At the urging of the Frenchman architect Ninar who studied the plans of the Hydrotherapy Clinic at the spa town of Killini, he drew up an extensive plan concerning the feasibility of the Foundation. His efforts clashed constantly with the backward minds of his time, with the entrenched conservatism and with the bureaucratic red tape, in other words with the die-hard bureaucrats as he called them. From 1960 to 1970, he served as the chief medical officer of the Prefecture of Ilia with the rank of Director of the Ministry of Health and Social Services. He served the medical profession tirelessly, offering his services without complaint and with deep compassion for his fellow men, many times at a great personal cost.

John Carapanayiotis specialized in physical medicine at a time when the medical world in post-war Greece was ignorant of this specific medical specialty, and the political, economic and social backdrop was incapable of accepting and understanding the wealth of scientific knowledge that he was trying to introduce. He was far ahead of his time and was condemned to the same fate as all other visionaries and pioneers in the way that his knowledge and scientific background were not put into practice for decades to come.

In 1957, he married Chrisanthe Mitaki, and had two daughters Iphigenia, a cytologist, and Olga, a radiologist. Until the last days of his life, apart from being a doctor, he was a devoted husband and father, as well as a valued counselor to his fellow countrymen. He served as the Mayor of town of Zacharo from 1969 to 1981. His private practice was, until the end of his life, a meeting point for patients, colleagues and fellow countrymen with whom he frequently exchanged thoughts, visions and pursuits, and whose common denominator was the progress and improvement of the region. He died in 1999, with his family at his side, with his faculties, works and dreams intact.



Moving the Diathermy Apparatus from the Burdick firm, in the truck bed, from the laboratory to the thermal bath towns of Killini and Kaiafa. Next to John Carapanayiotis, his wife Chrisanthe.

Conclusion

John C. Carapanayiotis was the unknown pioneer of physical and rehabilitation medicine in Greece, and most probably the Balkans, with, at the time, specialized knowledge which he had learned from the founder of the specialty, the American Professor Howard A. Rusk. This article is a small tribute to the medical services he rendered selflessly in Greece at the beginning of the 1950's.

References

- 1. http://www.physiatry.org/?page=History_PMR (last accessed 18 June 2016).
- 2. Joel A. DeLisa JA. Rehabilitation Medicine: Principles and practice, third edition, 1998, p 15.
- Roumeliotis D. Medical Rehabilitation. Athens: Zitα Medical Publications, 1993.
- 4. Personal records of the writers.
- 5. Baltas CS. et al. John Carapanayiotis, the unknown pioneer of Physical and Rehabilitation Medicine. Med Ann 2004;27(1):62-4.
- 6. Christos S. Baltas. History of Greek Radiology. PhD diss, University of Thessaly, Department of Radiology. Larisa 2006, pp. 150-1.
- Nava Blum N, Elizabeth Fee E. Howard A. Rusk (1901–1989) From Military Medicine to Comprehensive Rehabilitation. Am J Public Health. 2008;98(2): 256-7.

Sažetak

John C. Carapanayiotis specijalizirao je fizikalnu medicine i rehabilitaciju 1948. u SAD-u, u vrijeme kada medicinski svijet u poslijeratnoj Grčkoj još nije bio upoznat s ovom specifičnom medicinskom specijalizacijom, a politička, ekonomska i društvena pozadina nije bila spremna prihvatiti bogatstvo znanstvenih spoznaja koje je pokušavao uvesti. Specijalizacija fizikalne medicine i rehabilitacije u Grčkoj je osnovana 1973. godine.

John C. Carapanayiotis bio je član Američkog kongresa fizikalne medicine tijekom 1950-ih. U istom je razdoblju izrazio zainteresiranost, u ime Sveučilišta u New Yorku, za osnivanje Klinike za fizikalnu terapiju u Grčkoj, kojoj bi Marshallovim planom bilo odobreno neograničeno financiranje.

Njegovi su se napori stalno sukobljavali s nazadnim mentalitetom njegova vremena, s ukorijenjenim konzervativizmom i birokracijom. Bio je daleko ispred svoga vremena, osuđen na sudbinu svih ostalih vizionara i pionira kojima se znanje i znanstvena pozadina nisu primjenjivali još desetljećima.

Ključne riječi: fizijatar; fizikalna medicina i rehabilitacija; povijest; Grčka.