

Introduction

In 1873, in the United States and across the Atlantic, Victorians began talking about a controversial new book: *Sex in Education; or, A Fair Chance for the Girls*. Written by the now-infamous Edward H. Clarke, a physician at Harvard University, the book cautioned middle-class families that their daughters were seriously at risk for illness, with catastrophic consequences. The author warned that young women had unique and fragile constitutions and that they could become physically depleted or sterile when taxed by the rigors of coeducational studies, especially during menstruation.¹ As more and more young women sought higher education, Clarke's work set off a firestorm of debate, as women's rights activists rejected his alarming predictions.

Spearheading the fight against Clarke was Mary Putnam Jacobi, a physician from New York, who provided scientific ammunition to refute his claims. Her own study showed the opposite to be true: women were healthy when they *were* educated, mentally engaged, and physically active.² Women were not perpetually ill during menstruation, nor were they hindered by their biology, she insisted. Social limitations, not biology, constrained women and threatened their health.³

Edward Clarke has come to represent an effort by Victorian-era medicine to use biology as reinforcement for female subordination. Today, it seems obvious that Clarke's reactionary study was not based on pure science, but it was also a reflection of his gender politics. But so was Mary Putnam Jacobi's. Her version of the "truth" about women's bodies was also deeply connected to her own notions of gender and her hopes for female equality. She used the tools of scientific medicine, especially the laboratory, to prove that women were biologically capable of being equal players in the public sphere. She tried

to depathologize and normalize the female body to show that women were capable of higher education, professional careers, and political participation. Most radically, she argued that men and women were not so different, and had the majority of human physiological and mental traits in common.

In the late nineteenth century, the body occupied a central position in battles over “the woman question.” Many observers looked to the biology of sex differences to justify the social and symbolic separation of men and women. At a critical moment of professionalization, a number of orthodox physicians defined themselves as experts on women’s nature and reinforced a model of sex differences that portrayed men and women as physical opposites. Some medical men claimed that female uniqueness was tantamount to women’s physical weakness and mental inferiority.

Scholars have shown how Victorian gender ideology shaped knowledge on female health, focusing on medicine’s masculine bias.⁴ While many scientists and physicians were intent on using biological knowledge to demonstrate female fragility, they did not go unchallenged. A dialogue on differences between the sexes contained many voices and interpretations, both male and female. Women physicians played a large part in this debate, and Jacobi’s was one of the loudest voices. A leading expert for feminist causes, she was called on by women’s organizations, journals, and the women’s rights leadership to set the record straight and provide medical evidence to support female vitality.⁵ Reflecting their own views on female nature, women defined members of their sex in ways that reflected their own politics. They, too, were medical activists who could not separate their social values from their “sexual science.”⁶

This book is the first scholarly treatment of Jacobi that focuses on the interrelationship of her social activism and her scientific inquiry, arguing that her science and politics were one and the same. Although it is a biographical study of an atypical woman, its significance goes beyond an individual life to the heart of American social, cultural, and political life. Her story serves as a vehicle for the analysis of the politics of gender and medical knowledge in late-nineteenth-century America. It also provides an open window into the contested world of nineteenth-century medicine and provides historical perspective on heated debates about the nature of gender that continue today.

✦ MARY PUTNAM JACOBI is now considered one of the most important figures in the history of American medicine. In her own time, leading medical practitioners — men and women — agreed that she was at the forefront of the profession. She has been called a “pathfinder” in medicine for her accomplish-

ments and extensive education, standing out among both women and men for earning three degrees.⁷ She first studied at the New York College of Pharmacy and received a degree in 1863; she then attended the Female (later Woman's) Medical College of Pennsylvania in Philadelphia, where she received her first M.D. in 1864. Dissatisfied with her education in America, she traveled to France and became the first woman admitted to the École de Médecine in Paris, receiving her second M.D. in 1871 and graduating with high honors. Her two medical school theses, the first in Latin and the second in French, reveal a conscious, early effort to define herself as a woman of science.⁸ In the course of her career, she accessed a medical world dominated by men and won admission to several American medical societies that had historically been unfriendly to women. Combining therapeutics, research, and activism, she was also a prolific author who published several books and over 120 articles. Within her own lifetime, and also in historical memory, she represented a model of medicine based on scientific rigor and has become symbolic of women physicians who valued science over sentiment.

And yet, up until now, she has not been the subject of a full-scale study. Certainly, Jacobi is a central figure in Regina Morantz-Sanchez's groundbreaking work on women physicians, *Sympathy and Science: Women Physicians in American Medicine*.⁹ Morantz-Sanchez was the first to describe Jacobi's scientific sensibility in contrast to the "sympathetic" approaches of other women physicians who emphasized maternalism, spirituality, and female nurture over rationalism and experimentalism. Other scholars have documented certain elements of Jacobi's life, including her education, Paris experience, writing, and relationship with her husband, Abraham Jacobi, who has been called the "father of pediatrics."¹⁰ And still, historians have yet to fully examine her as a political activist and medical scientist, in tandem, as this book does.

Jacobi's background has been of great interest to historians because the Putnam family had deep roots in American culture. Mary Corinna Putnam was the first daughter and eldest child of George Palmer Putnam, one of New York's leading publishers, and his wife, Victorine Haven Putnam. From Protestant New England stock, her father's family first arrived in America in 1642 and settled in Salem, Massachusetts. In 1692, Putnam family members were, now famously, the most active accusers in the Salem witch crisis. Mary descended from other famous Putnams, including heroes of the American Revolution, Generals Israel Putnam and Rufus Putnam.¹¹ But by the mid-nineteenth century, the Putnam family name had become synonymous with publishing.

Mary Putnam was born into the world of literature, arriving in 1842 while

her parents were living abroad in London and her father was employed in the transatlantic book trade. She returned to the United States at age five, with younger brother, Haven, and sister, Edith. The family eventually grew to include eleven children, with Mary as the eldest. Her siblings are historically significant in their own right, becoming active writers and key figures in the publishing industry.¹² A learned middle-class family, the Putnams encouraged their eldest daughter's education. At a young age, Mary began to establish herself as an essay and fiction writer, using her father's connections to get her pieces in print. But then she had a scientific "awakening" and began to pursue a medical education.

In an unpublished autobiography, penned in convalescence during her final years of life, she tried to explain her unconventional choice to pursue science and medicine, citing an almost uncontrollable desire as a young girl to carry out her own "anatomical experiment." After finding a dead rat in the barn of her family's Staten Island home, she wanted to cut it open to look at its insides. While most girls would have screamed in disgust at the dead rodent, Putnam recalled thinking, "If I had the courage I could cut that rat open and find his heart which I greatly longed to see." Her mother put a stop to her plans, and she noted, "I was secretly . . . relieved at the forcible delay of my anatomical studies."¹³ Like many women doctors who wrote memoirs, she tried to explain her unusual life choices, and described animal experimentation as an early instinct. Looking back on years of dealing with disease and death, and spending more time in the hospital than the home, she returned to events of her childhood to claim that her study of science was a natural inclination.

But Putnam's career was not predestined. Rather, she pursued science as an antidote for spiritual confusion and gender conflicts. Her childhood years were plagued by her struggles with religion, particularly fending off pressure from her grandmother, an evangelical who expected a youthful conversion experience. While the evangelical tradition has been shown to be a source of social capital and power for many young women, particularly during the Second Great Awakening, Putnam wanted to be liberated from religious doctrine and rejected women's secondary status in churches and society.¹⁴ In the volatile Civil War era, she desired more concrete, pragmatic, immediate solutions to social crises, as well as a way out of the gender role expectations of her class. She found an escape through the study of science.

Putnam's story illustrates the route traveled by women who reconfigured religion into a scientific faith. As she dramatically shifted her worldview, Putnam found new sources of devotion in medical scripture and in hospitals as

temples of health. Her life story foreshadows the “spiritual crisis of the Gilded Age,” that is, the process by which many members of the middle class participated in the secularization and medicalization of American society in the post–Civil War period. Many Americans found ways to harmonize science and religion; they would continue to worship, but they also placed their faith in numbers, knowledge, and practices produced within academic and political institutions. Middle-class women, through their work both at home and in public, as hygienic homemakers or health professionals, played an integral part in disseminating new scientific principles. Their ideas and activities would be critical for the making of twentieth-century America, a society that, increasingly, followed a “gospel of germs,” pursued “magic bullets,” and observed the authority of scientific knowledge.¹⁵

Putnam’s years as a student in Paris solidified her scientific faith. Crossing the Atlantic in 1866, she spent almost five years in France, returning to New York at the end of 1871, degree in hand and personally transformed. She had acquired an unprecedented medical education for an American woman, studying in the halls of the *École de Médecine*, observing patients in the Paris clinics, and moreover, learning histology and cellular pathology in the city’s microbiology laboratories. Putnam was inspired by French radical politics, associating with socialists and liberal reformers who mentored her personally and intellectually. She lived through the bombardment of Paris during the Franco-Prussian War and then witnessed the Paris Commune of 1871. In the next three decades, she integrated science and medicine, and blended science and politics, becoming, arguably, the most significant woman physician of her time.

In New York, she quickly built her reputation on her extensive education and numerous articles in leading medical journals. As a professor and a practitioner, she soon took on leadership roles and affiliations at numerous medical institutions in the city. She was most famously a lecturer and then professor of materia medica and therapeutics at the Woman’s Medical College of the New York Infirmary, her home base from 1871 to 1889, and worked until 1897 as an attending physician at the affiliated New York Infirmary for Women and Children, founded by Elizabeth Blackwell. She also taught at the New York Post-Graduate Medical School, served as a visiting physician at St. Mark’s Hospital, and helped establish the Pediatric Clinic at Mount Sinai. Jacobi gained prominence as a physician in an era when female practitioners struggled for acceptance in orthodox medicine.

Inside and outside of medicine, there was great opposition to women physi-