2013 ELEANOR KROHN HERRMANN LECTURE

The Most Admired Woman in the World: Forgetting and Remembering in the History of Nursing¹

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In 1992, Richard Owen, the physician and polio survivor who directed the Sister Kenny Institute in St. Paul, Minnesota, organized a celebration of the 50th anniversary of the Institute, calling on former patients to offer their memories and honor "a pioneer [who changed] . . . the way the world viewed polio treatment." The Institute held an exhibit on Sister Elizabeth Kenny, and the state's governor declared December 17 "Sister Kenny Day." The Twin Cities hosted an Indoor Wheelchair Tennis Tournament and an International Art Show by Disabled Artists, which was an annual event sponsored by the Institute.

Owen was known to have been a patient of Kenny in the 1940s when the nurse had visited the Indiana hospital where he had been a teenage patient; she was "an awesome lady, large physically and in aura," he had told local reporters. Methods for treating polio paralysis were no longer important, he admitted, but her ideas about early mobility and reeducation were still part of current therapies for spinal cord and head injuries. Although "she did not know the technical language of medical doctors," Kenny had made "accurate observations," which others had missed, "that were totally correct."

I met Owen in December 1992 when I first came to the Twin Cities during the early stages of my research on Kenny. Elizabeth Kenny, a nurse

Nursing History Review 23 (2015): 28–55. A Publication of the American Association for the History of Nursing. Copyright © 2015 Springer Publishing Company. http://dx.doi.org/10.1891/1062-8061.23.28 born in Australia, had come to America in the 1940s, confronted suspicious doctors and other nurses, and transformed the clinical care of polio. In her day, she was a celebrity, but I had never heard of her while I was growing up in Melbourne in the 1960s and 1970s. Like most Australians, I was taught that polio was an "old" disease, which medical science had conquered through vaccines and laboratory ingenuity. In the 1980s, a doctoral student at the University of Pennsylvania working on the history of polio, I became intrigued by the story of a nurse from Australia who changed American medicine.

In 1992, while teaching history at Monash University in Melbourne, a friend told me that Mary Kenny McCracken—Kenny's beloved ward who had traveled to America with her in 1940—was alive, living in Queensland, and willing to be interviewed. I went to see Mary and her husband Stuart and found them hospitable, a bit wary, and willing to show me papers and photographs, which they had not yet given to the University of Queensland. The 5 years Mary had spent in the United States had left a profound impression on her; my dual background (born and raised in Australia but trained in American history in the United States) intrigued her.⁴ When I received an Australian Research Council grant to travel to the United States to pursue this research, the first place I went to was St. Paul to look at the Kenny Collection at the Minnesota Historical Society. There I met Richard Owen who invited me to attend the Institute's celebrations that same week.

Although I was only just beginning my research on Kenny, I was asked to sit in front of a video camera and interview the former patients—most in their 60s and 70s—who had flocked to celebrate the Institute's anniversary. They spoke warmly of their memories of being treated by Kenny and her technicians and told me in matter-of-fact ways about their later experiences of living with postpolio syndrome (PPS).

When I look back now at that moment in December 1992, I am struck by how, in some ways, it was misleading. I thought the anniversary celebrations, including the responses by Minnesota's governor and Twin City officials, indicated a lasting, energetic interest in Kenny and her work. In fact, that moment was a brief bubble; even in Minnesota, there was little interest in Kenny or polio—and I later realized that I needed to explain the forgetting of both the purse and the disease.

What continued to resonate with me through my later years of research and writing was my opportunity to meet Kenny's former patients and hear their voices and see their bodies. Many had awkward gaits or ungainly arms or legs, but all were imbued with a confidence and a passion about what a difference Kenny's work had made for their lives. That was what was so memorable—their bodies assured, perhaps even graceful, despite visible and

increasing disabilities as the result of aging and PPS. The feeling of those bodies stayed with me and helped to center my writing on Kenny and polio around patients as well as clinicians.

This is a talk about remembering and forgetting in the history of nursing focused on Sister Kenny. The term sister was a British and Australian designation for senior nurse, not a religious title. First, let me introduce Kenny to you—her background, her methods, and her successes. Then, I will turn to the decades after Kenny died to examine how and why Kenny and the clinical care of polio were both forgotten. I will suggest that much of this forgetting was in fact deliberately facilitated by the March of Dimes, America's polio philanthropy. In the 1950s and 1960s, there were new stories about polio, the victory of its prevention through the Salk and then the Sabin (oral) vaccine with new heroes: not nurses with their arms around children but male scientists in white coats. Kenny's critics—many of whom outlived her—reminded the American public that she was "not even a nurse," a reference to her informal training in the early 1900s. Finally, I will reflect on the process of forgetting and the wider significance of memory in the history of nursing. I will urge us all—especially historians of nursing—to pay attention to clinical care and to clinicians.

I want to say first that I am not talking about recovering an unsung hero. My Kenny project, I recognize, is part of a process of memory making. I am adding another layer to the stories about Kenny.⁵ The different versions of Kenny I trace here reflect the forces of repression and forgetfulness. Indeed, I want to stress the fragility of memory. At the back of my mind are figures such as Florence Nightingale who have been consistently, forcefully remembered in ways that have not often been scrutinized by practitioners or historians. Both remembering and forgetting are responses to the needs of the present and help to create and reify elements of a disappearing past.

Kenny sought to straddle the gendered medical culture of her time and to gain respect as both a hands-on therapist and a scientific discoverer. She presented an alternative paradigm of the body and by extension of patient autonomy. At a time when doctors rarely explained what they were doing or why and nurses were often close-mouthed and harried with the sense that the patient's foremost responsibility was obedience to medical direction, Kenny's emphasis was on explaining what was happening. She argued that the patient's active participation—physically and mentally—played a crucial role in the healing process. She demanded that patients understand the names of their muscles and the reasons behind correct muscle movements.

Her notions of science were equally provocative. She was convinced that scientific theory had to be based on clinical evidence, even for an understanding

of invisible microbes. She saw scientific investigation as a way of demonstrating the physiological processes underlying the efficacy of her methods. Her emphasis on understanding disease in the living body rather than through tissue pathology convinced her detractors that she lacked an appreciation of true, strong, masculine science whose proponents were not swayed by weaker emotions of caring and empathy. How she managed those tricky waters is at the heart of my story.

Kenny in Australia

Kenny was born in 1880, the fifth child of nine. Her father Michael Kenny, an Irish immigrant, worked as a transient farmhand, and the family moved many times across rural New South Wales and Queensland. Kenny's sisters all chose to marry local farmers, but Kenny was dissatisfied with such domesticity. She trained as a bush nurse through informal apprenticeships and began to practice in southern Queensland in the early 1900s.⁶

Her training was typical of her time and class. In the 1880s and 1890s, a few middle-class British women, inspired by the example of Florence Nightingale, trained in elite hospital nursing schools such as St Thomas' and then left England to set up Nightingale-like nursing schools in Sydney and Melbourne. Most Australian working-class women kept far from such hierarchical hospitals. Australian bush nursing, such as rural nursing in North America, was physically demanding work, requiring confidence, ingenuity, and technical skills. Bush nurses were usually the sole health providers for families living many miles apart, and they tended to work with rather than for physicians.⁷

In 1911, Kenny set up a small clinic in Nobby, about a hundred miles west of Brisbane, and became a bush nurse. It was in the bush that Kenny first developed her methods of treating polio, a disease she had never seen before. She found that applying heated wool cloths (later called hot packs) and gently, carefully exercising muscles relieved her patients' pain and muscle tightness. Continuing these exercises after the pain and sensitivity were gone helped patients to strengthen weakened muscles and, Kenny came to believe, to reconnect pathways between the nerves and the muscles and thus ameliorate paralysis. She began to specialize in the care of the physically disabled, especially patients whose doctors had said they would never improve.⁸

Kenny gained additional nursing experience with the outbreak of the Great War. Although she was ineligible for the Australian Nursing Service because she had not attended nursing school and had no nursing certificate, she was able to join the Australian Army's Medical Corps as a nurse based on her clinical experience and a letter of reference from a respected physician. She received her title "sister" (the army equivalent of first lieutenant) when she worked as an army nurse on troop ships bringing wounded Australian soldiers home from the battles of Europe. Nursing soldiers while traveling under the threat of enemy submarines was rough and dangerous work, but it reinforced Kenny's love of adventure.9

After the war, she continued to work as a nurse, taking on individual disabled private patients and caring for them in their homes. In the 1920s, she developed a new kind of emergency stretcher and traveled to England and the United States to promote it. Concerned about her own frequent absences and her mother's declining health, Kenny adopted Lucy Lily Stewart, a 9-year-old girl from Brisbane, and renamed her Mary Kenny. Mary lived with Kenny's mother (whom she called Gran) until Gran died in 1937, and Mary became Kenny's assistant and travelling companion.¹⁰

In the 1930s, with the support of sympathetic civil servants, Kenny was able to open a few clinics to offer her method and teach a small number of nurses. Most Australian physicians disapproved of her work and ideas. They declared publicly that splinting was "essential" in polio care and any abandonment was a "grievous error and fraught with great danger." Admirers of her work, they explained, had been blinded by Kenny's "strong personality" rather than the actual efficacy of her methods. 11

Nonetheless, with the support of the federal minister of health, Kenny continued to set up clinics, including one attached to a Sydney hospital that was in his constituency. She became a national figure, featured in newspapers and popular magazines as "a new Florence Nightingale" whose discovery of new methods of treating polio made her "as well known as Brisbane's Town Hall." Most importantly, the Queensland government offered Kenny control of Ward 7 at the Brisbane General Hospital. It was highly unusual to have a nonphysician in charge of inpatients at a large city hospital. As one Brisbane physician later recalled, she "wasn't under anybody," and she reported directly to the state minister of health. ¹³

Polio Before 1940

Let me offer a few remarks about polio. Polio is a contagious viral infection that was endemic around the world for many centuries. Until the late 19th century, the virus rarely caused paralytic symptoms because most infants were

protected from infection by maternal antibodies, and young children usually experienced only mild symptoms that were often mistaken for a gastro-intestinal attack. As levels of sanitation improved, older children were more likely to develop paralysis. In the late 1890s, polio epidemics appeared first in Scandinavia and then in other industrialized Western countries including the United States. ¹⁴ Today, there is a consensus that the poliovirus is spread by contaminated fecal matter, but until the late 1950s, there were many theories about how the disease spread and just how contagious it was.

In America, polio was a new and frightening disease. Working with children paralyzed during the 1910s, Boston orthopedic surgeons and physical therapists developed therapies based on the concept of rest and the enforced straightening of limbs. Any improper use of muscles, they argued, would cause deformities and therefore patients, especially children whose movements could not easily be controlled, had to be strictly confined to positions that would keep their bodies straight, usually with casts and splints. Because polio was considered infectious, new patients were confined for 3–6 weeks in an infectious disease hospital. In that early or "acute" stage, no massage or exercises were used for expert opinion held, in the words of orthopedic nurse Jesse Stevenson, that "deformities develop even more quickly when the muscles are sensitive."

During the next "convalescent" stage, which could range from several months to 2 years, patients stayed in general wards or crippled children's homes, usually restrained in casts and splints. After many months, patients were sent home and exercises were explained to the patient's mother. When underused muscles withered and limbs grew unevenly and after physicians determined that no further recovery of muscle strength could be expected, they prescribed orthopedic surgery such as muscle transplantation. Only much later did polio experts admit that many orthopedic surgeons got "terrible results." In 1955, an orthopedist recalled with horror 24 of his patients who were placed in casts and splints in the 1930s, some for as long as 2 years, while he and other specialists waited "for their muscles to recover." ¹⁶

The experience of Franklin Roosevelt in the 1920s inspired a surge of optimism around hydrotherapy. Roosevelt, a wealthy lawyer who had been nominated for the vice presidency by the Democratic Party, was paralyzed by polio in 1921 at the age of 39 years. In his search for therapies that would enable him to walk again, he traveled to Warm Springs, then a run-down resort in rural Georgia, to try out its heated mineral springs. He was sufficiently impressed by this treatment to buy the resort and develop it into a polio rehabilitation center. By 1928, when he was elected governor of New York, he was known as the man who had battled and conquered his paralysis, a story that,

although not true, was even more crucial during his successful campaign for the presidency in 1932.¹⁷

During the 1930s, however, polio care took a conservative turn. Physicians learned not to expect much improvement in their patients' muscles and were suspicious of those who claimed success. At the Baltimore Children's Hospital School, physical therapists Florence and Henry Kendall were disheartened to see that some of their patients recovered "to normal with little or no treatment," whereas others remained "hopelessly crippled even though given the best care." The Kendalls were also convinced that patients were harmed by "frequent, improper handling and overtreatment." They used frames, casts, and splints; rejected underwater exercises; and suggested that some patients might benefit from "complete rest in the bed for several years." 18

Kenny's Method

At the Brisbane General Hospital, a more confident Kenny began to articulate bolder claims. Not only did splints worsen polio paralysis, she argued, but also the use of iron lungs could harm patients, even those with serious respiratory paralysis. She shocked hospital physicians by taking one child out of an iron lung and treating him with hot packs. The child did not die and learned to breathe on his own. A few Brisbane surgeons and other physicians from Melbourne began to say publicly that her work was helping their patients. ¹⁹

She also became convinced that the reason her methods worked so well was that polio paralysis was the result of her theory of a new concept of pathological and physiological process. Polio, she argued, might not be solely a neurological disease but also one that affected muscles and skin.²⁰ Her challenge to existing concepts of polio attracted patients and families because it embodied a different style of clinical practice: optimistic, energetic, and patient-centered.

Kenny recognized that changing polio care involved a vast array of cultural and social resources, not just a few clinics and a handful of medical allies. Her view of clinical change was based on a strong faith in scientific explanations to gird her clinical work and lead physicians to adopt it. Investigations by "men of science," she hoped, would lead physicians to take seriously "the signs and symptoms . . . previously left unnoticed."²¹

Kenny developed three crucial terms: *spasm*, *alienation*, and *incoordination*. Unlike mainstream or what she called "orthodox" medicine, Kenny argued that paralysis was caused by muscles in spasm, which were painful and

sensitive. To treat spasm, she used what became known as hot packs or Kenny packs: soft, wool cloths immersed in boiling water, put through a wringer, and wrapped around the belly of the muscle in spasm, followed by protective coverings and then a dry cloth. After around 15 minutes, the hot packs cooled, but they remained in place for about 2 hours on the principle that alternating heat and cooling would aid circulation and improve the "vitality" of the body's tissues.²²

Alienation was the term Kenny used to explain other muscles that appeared to be paralyzed but, she argued, were not. Because of the pain associated with spasm, patients lost awareness of these muscles, causing them to be "drop[ped] from the patient's consciousness and become alienated or divorced from voluntary action." Properly trained Kenny technicians could reestablish the "normal brain pathways" through careful muscle exercises during which the body was kept in a normal alignment.²³

Her third term—incoordination—was used to explain the awkward ways that patients initially began to use their arms and legs and other body parts. The poliovirus, she argued, had disorganized the "normal physiological activity of the nervous system," a disruption that persisted after spasm had been released. Kenny technicians sought to reestablish connections "between the patient's mind and the more peripheral parts of his or her body." This condition had to be treated by a properly trained Kenny technician, using guided muscle exercises to encourage the patient to move when ready and reestablish the link between mind and muscles. Patients needed to understand the names and functions of their muscles to participate in their own care.²⁴

Most of the therapies Kenny used were drawn from the standard therapeutic repertoire for dealing with pain, skin sensitivity, and paralysis. Heat therapies such as heated cloths, hot baths, and dry heat from lamps were well-known. Although Kenny rejected standard protective devices such as casts and splints, she did protect her patients' muscles. Her patients lay on a firm mattress supported by bed boards and a foot board so that their heels and toes were not on the mattress. When necessary, she used a small rolled towel under or on either side of the knees, never anything that would seem like a splint and might interfere with the patient's feeling of normal alignment.²⁵

After September 1939, when Britain and Australia declared war on Germany, Kenny began to consider leaving Australia for the United States. She was frustrated to find that government officials paid more attention to readying troops than to domestic disease. Laudatory statements by physicians, Kenny discovered, were now "buried by war news." After reading an admission in *Journal of the American Medical Association (JAMA*) by a polio specialist that polio had no effective therapy, Kenny was sure that the United States, a

country not immersed in the European conflict, needed her help. This idea was strengthened when a sympathetic Brisbane surgeon returned from a trip there and told her about the March of Dimes, a new philanthropy founded by Roosevelt and his advisors, and also urged her to visit the Mayo Clinic, a medical specialty center as renowned in Australia as it was in America. Her Brisbane allies helped organize her trip to America, with funding from the state health department and a letter of introduction to the head of the March of Dimes from the Premier of Queensland.²⁷ Kenny hoped that a polio philanthropy would be less beholden to the medical establishment and that her Brisbane allies' personal connections to Mayo specialists would give her an opportunity to demonstrate her work in a more welcoming atmosphere than Australian specialists had provided.

Kenny in America

In the United States, Kenny went first to the headquarters of the March of Dimes in New York City, which, as she shrewdly recognized, was becoming a crucial polio philanthropy. Formally incorporated only 2 years earlier, it was in the midst of reshaping itself into what became a model for all disease charities: committed to funding research, professional training, and patient care on a national scale. Its sophisticated fundraising program run by a professionally trained public relations staff continued to market hope along with fear, stressing the likelihood that anyone's child could be a victim.²⁸

Although the March of Dimes claimed it was not in the business of judging polio therapies, that was not quite true. It had to define best polio care when it funded training in the latest methods of diagnosis, treatment, and prevention. The pamphlets it distributed similarly laid out therapies reflecting a particular vision of polio's pathology. Although the March of Dimes never resolved how to define best practice, by the early 1940s, it followed the least partisan policy possible, agreeing to pay for any form of therapy recommended by any physician who was legally recognized by a state's licensing laws. Its research policies, however, became far stricter: Local and state March of Dimes chapters were forbidden to use any of their funds for research, and grants were offered only to individuals based at an institution recognized as equipped to pursue scientific work.²⁹

The man in charge of the March of Dimes was a tough-minded Irish Catholic in an era when Catholics faced widespread discrimination. Basil O'Connor had grown up in a working-class family in Taunton, Massachusetts.

He had studied at Dartmouth College and found a sponsor to help him attend Harvard Law School. He moved to New York City in 1919 where he became a wealthy Wall Street lawyer and in the early 1920s, chose Franklin Roosevelt as his legal partner. Roosevelt, despite his paralysis, was determined to return to political life, and O'Connor could see how useful Roosevelt's name and connections would be for their law firm.³⁰

In 1940, Kenny spent "almost 2 hours" talking to O'Connor in his office. O'Connor carefully explained to her that grants were awarded only to individuals based at an institution that had requested funding from the March of Dimes and then only if the project "met the approval of the [its] medical advisory board." Kenny was convinced by "the sincerity of purpose" behind this policy. It was, she concluded, "only natural that a lawyer would hesitate to dictate a policy to men who were specialists in the field of medicine." O'Connor later recalled that after that first meeting he said to his medical director, "I think she's a crackpot, but I'm not so sure she may not have something."³¹

Kenny then traveled to Rochester, Minnesota, to meet Mayo Clinic orthopedist Melvin Henderson and his colleague Frank Krusen, a physician who specialized in physical medicine. Krusen and Henderson decided that some physicians should "observe her work more closely." Sensing, however, that Kenny might not be easy to work with, they urged her to go to Minneapolis where there was a large public hospital as well as a state orthopedic hospital.³²

In the Twin Cities, Kenny was, for the first time, able to treat American patients, although at first only the "hopeless" ones. Her clinical results intrigued a few, well-connected physicians, including Wallace Cole (chair of the University of Minnesota's orthopedic department), Miland Knapp (the physician who directed the university's physical therapy department), and John Pohl, a local surgeon who was in charge of the polio clinic at the city hospital.³³

Kenny's work with Pohl's 17-year-old patient Henry Haverstock, Jr. was a turning point in her relationship with the city's civic establishment. Haverstock's grateful father introduced her to local businessmen and their wives. The son later graduated from the University of Minnesota and became a lawyer; his physical and professional achievements provided dramatic evidence of the veracity of Kenny's claims.³⁴

O'Connor agreed to pay for a study of Kenny's method at the University of Minnesota and to finance Kenny and Mary's living expenses for an initial 6 months. Kenny was allowed to treat patients at what became called Station K, a ward at the Minneapolis General Hospital. During the first few months, she and Mary struggled to overcome the resistance of doctors and nurses on the hospital staff who saw her methods as dangerous and irrational. One of

her patients recalled that his physician prescribed arm and leg splints saying, "You're my patient, so I'm going to do what I think is right." When Kenny came back, she cut off the splints and threw them on the floor. To horrified patients and nurses, she said reassuringly, "He's just a young doctor; I'll have a talk with him." 35

After a positive report by Cole and Knapp which was published in *JAMA*, the university's medical school began to offer formal courses to teach her work to physicians, nurses, and physical therapists, courses taught by Kenny and her Minneapolis allies. The March of Dimes urged its chapters around the country to send clinicians to learn her work. It not only paid for the courses held at the University of Minnesota but also made sure there were soon other courses where her methods were taught at major medical centers around the country.³⁶

Kenny as Celebrity

In 1942, Kenny set up her own Kenny Institute in a building that had been a former children's tuberculosis hospital and was still run by the city. Now firmly based in Minnesota, she continued to travel around the country, speaking to medical and nursing groups and encouraging them to come to the Institute to learn her methods.³⁷ She was soon a familiar figure—large, increasingly well dressed, and always in a wide-brimmed hat whose design she claimed was based on the uniform worn by Australian soldiers during the Great War. Kenny became one of the most prominent women of her era: the subject of a 1946 Hollywood movie starring Rosalind Russell and an expert witness at congressional hearings on the founding of the National Science Foundation. Kenny never married, choosing the single life typical of ambitious women professionals of her era. The Hollywood movie portrayed Kenny as being forced to choose between her work and a fiancé, a story that was probably false. Her relations with O'Connor and the March of Dimes soured, and in 1945, she and her supporters at the Kenny Institute set up a separate Kenny Foundation to raise money for patients treated by Kenny technicians and for the training of more technicians.

Kenny claimed that hers was the only proper polio care, but the American public recognized that most elements of her work had become standard polio care by the mid-1940s. Indeed, many American physicians—and March of Dimes officials—renamed Kenny's hot packs and muscle exercises the "modern" treatment of polio, implying a combination of the best of her methods and the best of others. Reluctant to give up control of her Institute

and the Kenny Foundation, Kenny finally retired as director of the Institute in 1949 and returned to live in Australia in 1951. In 1952, not long before her death, she was chosen in a Gallup poll as America's most admired woman, outranking former first lady Eleanor Roosevelt.

A New Polio Story

In 1954, the March of Dimes sponsored the world's largest clinical trial of the Salk polio vaccine, and in 1955, the vaccine was found safe and effective and made available to the public. This trial transformed the meaning of polio from a disease centered on pain and paralysis whose experts were pediatricians, orthopedists, nurses, and physical therapists to a disease caused by a virus and prevented by a vaccine. Polio epidemics became far less frequent, and the polio vaccine was lauded as a miraculous and dramatic symbol of modern American medical science.

The story of how polio had been conquered was well-crafted by the March of Dimes, erasing almost all previous debates in polio history, especially those around therapy. In 1958, the March of Dimes organized a special ceremony at Warm Springs to honor 17 polio heroes in a new Polio Hall of Fame. The Hall of Fame featured 20th-century scientists whose research—funded by the March of Dimes—had led to the Salk and the Sabin (oral) vaccines, along with Roosevelt, O'Connor, and three 19th-century physicians. There were no modern orthopedists or physical medicine experts, much less any nurses.³⁸

Kenny was not the only nurse who was forgotten in maneuvers such as these, but her omission was certainly striking and pointed. Indeed, in a recent website dedicated to "promoting recognition" of her life and work, Allan Hildon, an Australian-born nurse (now a lecturer at the University of Essex), has posted images from the 1958 Polio Hall of Fame, which, he has argued, should be called a "wall of shame." There is "no excuse for the omission of Elizabeth Kenny," he declared, for she developed what "is still considered the most effective mode of treatment for the after effects of poliomyelitis." ³⁹

Settling Scores

During the 1950s and 1960s, two elements of America's polio experience were erased from medical and cultural memory: Elizabeth Kenny and the

clinical care of polio. This process of erasure began, ironically, in the obituaries of Kenny published in popular, medical and nursing journals right after her death in 1952. One of the most striking things about the early memorializing of Kenny was an effort to place her firmly into a pantheon of overenthusiastic, sadly misguided women who had made a difference to clinical care despite the failings of their character and intellect. This was part of a wider process of reminding the public that prominent, influential women—especially nurses—were not and never could be theorists or scientific innovators.

Her character was at the heart of a long unsympathetic obituary in the *New York Times*, which claimed that Kenny's "overriding personality" had allowed her to rise "from the status of an obscure Australian nurse to a personage of international importance in the medical world." These characteristics, however, had led to "a deplorable conflict with physicians who disagreed with her concept of polio." Oversimplifying Kenny's theory, the *Times* obituary said that Kenny saw polio not as a nervous disorder but as "an affliction of the muscles and skin," ideas that were the unsurprising result of one whose "medical knowledge and . . . grasp of anatomy were those acquired by a nurse." By contrast, physicians who "had studied the damaged brains of monkeys that had been infected with polio and of fatal human cases . . . saw plainly that the nerves were affected, for all Sister Kenny's denials."

This attack on Kenny's character and on her poor understanding of polio's pathology outraged Claus Jungeblut, a Columbia University virologist who had been an ally of Kenny's and had testified before congress about the March of Dimes "monopoly" on polio research funding. Jungeblut wrote an angry letter to the *Times*, complaining that the obituary failed "to do justice to the meaning of the 'Kenny concept' and [had confused] . . . existing scientific facts." A "new viewpoint," he pointed out, showed that the poliovirus travelled through the blood stream and could perhaps cause "a widespread involvement of peripheral areas, including skeletal and cardiac muscles." He cited specific research studies, including work by John Enders showing that the poliovirus could grow in nonneurological tissue (which won the Nobel Prize in 1954). As a polio scientist of many years, he added in another letter, it was "difficult for me to take a detached viewpoint of the subject." None of his letters were published by the *Times* or elsewhere. At the poliovirus could grow the published by the *Times* or elsewhere.

Kenny's death also offered physicians the opportunity to get in the last word on her contributions. In the *British Medical Journal*, Oxford orthopedist Herbert Seddon argued that Kenny had gone astray when she had elevated muscle spasm "into an important aspect of the pathology of the disease."

Her theory of alienation, further, was just "a new name for a whole variety of functional disorders." In Seddon's view, Kenny's "initial small store of knowledge" had been expanded as the result of "increasing contact with able medical people." Had she been content "to talk about treatment without embarking on speculations about pathology" and "had she been a little kindlier and more tolerant," Seddon concluded, "she might now be regarded as the Florence Nightingale of orthopedics, or at any rate of that part of it concerned with polio."⁴²

Seddon's reference to "the Florence Nightingale of orthopedics" reflected a consciously gendered notion of what made an appropriate female contribution to medical science. Seddon had elsewhere compared Kenny unfavorably to two "other great humane women of our time": Dame Agnes Hunt and Lady Marjory Allen. Hunt, a disabled nurse, had collaborated with the eminent British orthopedist Sir Robert Jones and cared for tubercular children and disabled veterans; Allen, a landscape architect, had founded an international organization for early childhood education and was active in the United Nations. These two women, Seddon believed, were "every bit as tenacious, every bit as impatient of red tape and professional complacency" as Kenny had been. But they had finally got their way by "cheerful persistence and by inspiring that greatest of all reforming forces—affection." Kenny had lacked what Seddon called these "qualities of greatness." 43 It was Kenny's stubborn demand for scientific legitimacy, in Seddon's view, that had alienated potential male allies who preferred insightful women who were kindly, patient, and cheerful.

Kenny's clinical skills were featured in the few obituaries that defined her primarily as a nurse. Mildred Elson's obituary of Kenny in the Physical Therapy Review recalled her as "a very warm person" with "a delightful and, at times, mischievous sense of humor." Elson was sure that "the controversy" which Kenny had aroused would be forgotten. In any case, it had "stimulated everyone to do a better job and the patient [had] benefited." For Elson, the central issue was patient care and patient perspective. Patients loved Kenny, she recalled, and appreciated "her kindness, reassuring manner, and skillful hands." "Her name will continue to be associated with the treatment of polio throughout the world [and] . . . for her courage and devotion to the polio patient."44 Few of the physicians who memorialized Kenny after her death commented on patients at all, but for nurses and physical therapists, the changes that Kenny's work had made to the routine care of patients were impressive and worth remembering. What Elson could not imagine was that attention to polio's clinical care would almost totally disappear for at least three decades.

Kenny Remembered

During the late 1960s, a few memoirs mentioned Kenny. I have found very few nurses who wrote their memories of the polio years before the vaccine, whether in Australia or America. One was published in the *Australian Nurses' Journal* in 1981 during the International Year of Disabled Persons. It was written by Edith Hall, a polio survivor who had become a disability activist at a time when disability rights were just emerging as policy issues. In her article "In the Ward Next Door to Sister Kenny," Hall described a tall woman who strode into the Melbourne hospital where Hall was a 6-year-old patient in the late 1930s. One of Hall's nurses commented, [that's] "a woman from Queensland who has 22 patients of her own in that ward over there, but you are lucky to be here where the real doctors and nurses are taking care of you."

Hall learned that the nurses who worked with Kenny were not allowed to eat in the staff dining room or use the hallways but had to walk around the hospital buildings to enter their ward. At the time, Hall was wearing plaster casts on her arms and legs and was attached to a steel frame with a combination of bandages and leather straps. She and other child patients quickly learned that Kenny's patients wore no splints at all and were even more frustrated to hear that those children were going home, whereas they remained "trussed" up, unable to move. Hall did not comment further on differences in polio care but she did reflect that although she was sure her nurses saw themselves as "dedicated and caring" professionals, she regretted that "efficiency is often presented as clinical sternness" without words of encouragement, "a genuine smile," or "a moment to listen." 46 The professional distaste for Kenny expressed by Hall's nurse was reflected in later general histories of nursing in Australia such as A Tradition of Care: A History of Nursing at the Royal Brisbane Hospital (1988) and Australian Nurses Since Nightingale 1860-1990 (1992), which both had no mention of Kenny. 47

Prominent physicians were more likely to write autobiographies and to have them published. Morris Fishbein was one of the best known American physicians in the 1930s and 1940s. A prominent popular health writer and commentator, a senior American Medical Association (AMA) official, and the editor of *JAMA*, he was also a crucial cultural censor who vetted unpublished magazine articles along with radio and movie scripts to be sure they portrayed American physicians accurately and sympathetically. In 1949, Fishbein was ousted from his position as *JAMA* editor and AMA general secretary, and although he continued to write and publish, he was no longer the powerful figure he had once been.⁴⁸ In his 1969 autobiography, Fishbein spent several

pages recalling Kenny. He pointed out that Kenny had no formal education and had never become "what is called a registered or graduate nurse." Her work, Fishbein admitted vaguely, had resulted in "further intensive studies" of polio's "pathological changes." He did not mention any of Kenny's theories; in his view, she was an untrained empiric who "knew nothing really of anatomy, physiology, pathology, or any other of the basic sciences on which scientific medicine rests." "Confronted with an emergency . . . she tried what she thought would help, and it did, but she never did know why it helped."⁴⁹

As a medical popularizer who no longer had the power to control the portrayal of physicians in any media, Fishbein blamed both Kenny and the press for the adulation around her. Her celebrity reputation in the 1940s, he concluded, was a typical example of how "most of the press liked to portray . . . another unprofessional investigator and discoverer being denied and overwhelmed by medical authority." 50

A few physicians who were acclaimed polio researchers referred to Kenny in their autobiographies. Melbourne virologist Francis Macfarlane Burnet—who had won the Nobel Prize for his work on immunology—recalled, "Being an Australian, I had heard much of Sister Elizabeth Kenny." He had met Kenny a year before her death and he described her "heavy-fleshed Irish face." Kenny was now almost forgotten by the world, Burnet admitted, but "there was an air of greatness about her, and I shall never forget that meeting." Her most important contributions, Burnet believed, had been to show paralyzed children how to make the best use of what functional muscles they had and to destroy "the orthodox superstition of immobilization by splinting." Burnet had disliked Kenny's extreme claims, recalling that she had told him that a primary site of viral infection could be the skin and offering the example of a patient whom she had known would die within 48 hours because his skin was "contracting all over."

One of the most influential ways that Kenny was placed into polio history before the 1990s was Yale epidemiologist John Paul's *History of Poliomyelitis*, which was published in 1971, the year he died. Paul's Yale Polio Unit, funded by the March of Dimes, had produced crucial serological studies of polio, and Paul was one of the March of Dimes' Hall of Fame scientists. His *History* dealt awkwardly with polio's clinical care, ignoring the work of nurses and physical therapists. Primarily a virologist, Paul believed that most orthopedic care—splints, braces, corrective surgery, and electrical treatments—lacked "real efficacy" and impressed patients mainly "from a psychological point of view." Kenny, Paul noted sadly, had attracted "fanatic" allies among "both lay and professional people" who believed "there was something magical in her personality as well as in her treatment." Kenny herself had exacerbated this situation, for the aggressive way she had presented her ideas had

44 Naomi Rogers

been "calculated to antagonize physicians." She had also ignored her appropriate role as nurse: "Instead of sticking to her daily work in the hospital wards, caring for and rehabilitating her patients, work for which she was eminently qualified, she became busy with all the paraphernalia of public campaigns and press agents, who, needless to say, loved a fight." The reputation of physicians was "apt to become tarnished" when they engaged in "medical polemics"; thus, Paul concluded, "how much more tarnished is the image of a nurse who, forsaking her natural duties, becomes similarly embroiled." 52

Cohn's Crusader

A few years after Kenny's death, science writer Victor Cohn, who had covered Kenny's story many times when she lived in Minneapolis, decided that he would write a book about her. Cohn felt he knew her story well. In 1953, he wrote "Angry Angel," a series about Kenny for the *Minneapolis Tribune*, which was widely syndicated. Then, like other science writers of his time, Cohn got caught up in one of the biggest science stories of the 1950s: the Salk polio vaccine. In 1955, he wrote a series of articles on the "human side" of the March of Dimes, which the *Tribune* published under the title *Four Billion Dimes*. The response to both series convinced Cohn that a full-length study of Kenny would engage a wide audience.⁵³

In 1955, Cohn took a leave of absence from the *Tribune*. He talked to lay supporters and sympathetic physicians who assured him that Kenny's theory that polio was a systemic disease was correct, for the virus "affected all tissues." Although Cohn was somewhat interested in clinical issues, he was already convinced that Kenny had made no sense scientifically. He confirmed his belief by conducting a phone interview with virologist John Enders who assured Cohn that no researcher had shown that the poliovirus attacked the muscles or had "any local action of any sort." Enders also denied that he had been influenced by Kenny's theories, declaring that her statements "certainly had no effect on the work in my laboratory."

Then Cohn organized a 5-week trip to Australia. Most of Kenny's relatives and friends agreed to be interviewed as did her former secretaries and some of the nurses she had trained. Several Australian physicians who had known Kenny were eager to set the record straight and also praised the appropriately conservative attitude of the Australian medical profession. Nonetheless, Cohn discovered, almost every physician claimed that he had played a major role in Kenny's career. ⁵⁶

Cohn's project was interrupted in 1968 when he moved to Washington to become science editor of the *Washington Post*. His book *Sister Kenny: The Woman Who Challenged the Doctors* was finally published in 1975. Cohn recognized that many of his readers would no longer remember Kenny from popular magazines or the rarely shown movie. He tried to convey how impressive she had been: "in her prime . . . overpowering [with] . . . a direct gaze that could turn to sharp steel." It was not only her physical appearance that had made her such an effective crusader. She had modeled herself, he believed, on "a sort of turn-of-the-century combination of Emmeline Pankhurst, Sarah Bernhardt, and Joan of Arc." She battled with men and enjoyed it, he argued, and quoted her as saying "I won't let any man boss me." ⁵⁷

Cohn's book was reviewed in the national press, in history journals, and in JAMA, almost entirely by women, at a time when women's history was just emerging as a separate discipline. In Clio Medica, historian Audrey Davis, curator at the Smithsonian, enjoyed Cohn's depiction of the controversial figure and suggested that her reception by the medical community "reveals much about the standards of American medicine in the 20th century."58 Another woman historian praised Cohn's book as well researched and pleasantly written but disliked his patronizing use of "Liza" rather than "Kenny." ⁵⁹ The reviewer for JAMA noted that today, Kenny's name "is seldom mentioned," but because "the emotions she aroused" had "subsided . . . a relatively unbiased biography and evaluation is possible." A "panicky" American public had been "enthusiastic for any approach that offered new hope" and most physicians "gradually . . . modified their therapy to resemble hers." In the Washington Post, Sonya Rudikoff agreed that Kenny's "revolutionary treatment of polio [had] conquered medical skepticism." Rudikoff was shocked by Cohn's description of the "incredible indifference, resistance, and even active opposition to her methods by the medical establishment of her day," which, she concluded, had been "extreme and unworthy."61

By the time Cohn's book appeared, Kenny, as the author had suspected, was fully forgotten. The RKO movie was shown only occasionally on late night TV. When polio was discussed at all, it was as a historical artifact. In 1973, the TV show "The Waltons," which dramatized the life of a family during the Great Depression, had a special 2-hour episode in which Olivia, the mother, is paralyzed by polio and seeks out an alternative therapy to walk again, in this case the Kenny method, which is presented as an unusual remedy mentioned in a local newspaper or as the *New York Times* described it, "unorthodox treatments developed by a Sister Kenny in Australia." Olivia's doctor and other specialists are doubtful and warn Olivia and her family of "the Australian nurse [who] . . . claims an extraordinary recovery rate. But so far, there's been

46 Naomi Rogers

no scientific verification of her claims." Despite his disapproval of Olivia's decision to try Kenny's methods and to remove the splints he had put on her legs, her doctor nonetheless helps her learn a special massage technique that he says is part of Kenny's work and provides up-to-date pamphlets sent by Kenny herself. In this episode, a *Times* reviewer suggested, "Polio is defanged, an occasion for family solidarity as the children, grandparents and father work together to bring hot packs to the bedridden mother."

Getting the Last Word

The other major moment in the remembering of Kenny was by her longstanding opponent, the prominent physical therapist Florence Kendall, who died in 2006 at the age of 95 years. Florence and her husband Henry had met Kenny in 1941 and had been frustrated to find their very critical report on her work ignored. Based at the Baltimore Children's Hospital School, they remained the bulwark of the anti-Kenny movement. Their textbook *Muscles: Testing and Function* became the gold standard for muscle evaluation and treatment, translated into many languages and in print today. After Henry died in 1979, Florence became a prominent lecturer. She was chosen as a member of the Maryland Women's Hall of Fame and was named "Physical Therapy Association (APTA).⁶⁴

In 1997, Kendall took the opportunity as the keynote lecturer at the annual meeting of the American Congress of Physical Medicine and Rehabilitation to revisit Kenny. During the 1940s, which Kendall termed the Kenny Era, the press had praised Kenny lavishly, ignoring many problems with her work as well as more promising conservative work practiced in Boston, Baltimore, and Warm Springs. Kendall had lived long enough to see polio therapies largely forgotten and was thus able to claim that Kenny's methods had been rejected. She compared Kenny's work to that of her husband and herself who had "made continuous efforts to keep records that would provide meaningful information." Their therapy, sometimes called "traditional, conventional, or orthodox," had included the use of not only hot packs but also heat lamps, warm baths, half shell (bivalve) plaster casts, foot boards, sand bags, and immobilization "in rare instances." "The combined power of politics, the press, and public passion that enveloped the controversy over Sister Kenny and her theories . . . nearly succeeded in blinding the truth," Kendall concluded, for "reason . . . and judgment can

be sidetracked by the hysteria . . . fear and anxiety caused by a devastating disease such as polio." After all, she reminded her audience of physical medicine experts, "We must hold fast to the sound principles that have been developed through years of scientific research." Kenny's work had clearly not been sound and was thus appropriately forgotten.

Polio Survivors Reemerge

In the mid-1980s, with the emergence of PPS, polio began to gain a new cultural prominence. Frustrated at the growing weakness in muscles they had "normalized" through hard work—along with other symptoms such as joint pain and extreme fatigue—survivors began to seek medical advice. Physicians, they discovered, had rarely if ever treated a case of polio and did not see these symptoms as indicating anything other than familiar signs of aging. Identifying this syndrome and fighting for its proper diagnosis and treatment brought together polio survivors who had not thought of themselves as a distinctive community before. They created a new specialty with a new set of experts, a few of them survivors themselves such as physician Lauro Halstead who organized the first international PPS conference held at Warm Springs in 1984.66

Survivors began to develop a counter-narrative about their previous polio care. The lessons they had been taught by nurses, physical therapists, and physicians, survivors now argued, had been wrong—"pushing through" did not, as promised, bring stable physical achievements. New medical research suggested that survivors may have originally recovered muscle function through a process of branching whereby surviving nerve cells developed extra branches (axonal sprouts) that reattached themselves to orphaned muscle fibers. Survivors developed PPS because these branches were under heavy usage for some years and tended to age especially rapidly. As weakness forced PPS survivors to move to crutches and wheelchairs, some became disability rights activists. Polio survivors became key lobbyists for the Americans With Disability Act of 1990 and joined other activists to protest the 1997 opening of the Roosevelt memorial, which gave no indication of his disability, leading federal officials to agree reluctantly to add a statue of Roosevelt seated in his wheelchair in 2001.⁶⁷

As stories of Kenny resurfaced in PPS newsletters and memoirs, a newly harsh memorialization emerged. Survivors remembered the messiness and pain of hot packs and the careless and brutal way they had sometimes been applied. As one survivor recalled, "Two times every day, the therapists took

hot packs out of the boiling water. The wool was too hot for them to touch so they used tongs. Every time they threw them on my bare legs I screamed." Others reported, "They still feel fear when they smell wet wool." 68

In 2002, psychophysiologist Richard Bruno published The Polio Paradox, which sought to explain why polio survivors had been reluctant to link their new symptoms with their former experience with polio. Among other factors, Bruno drew attention to examples of abusive care suffered by survivors years earlier. In shocking vignettes, he quoted survivors who recalled nurses who slapped them and turned off their iron lungs to punish them for crying and physical therapists who hit patients with rubber truncheons to make them stand up in their braces. Not all mistreatment, of course, took place on wards using the Kenny method, but some, he argued, was a specific result of her treatment. According to Bruno, "some of her techniques to identify alienated muscles and . . . to get polio patients to [walk] . . . were painful, terrifying, and also dangerous" (and he drew on Florence Kendall's lecture which was published in 1998). On occasion, polio survivors recalled Kenny herself as one of the abusers; in one example in Bruno's book, Kenny "slapped me on the face several times as a means of 'defining my reflex response." This sounds quite different from the frequent descriptions of Kenny's gentle hands and her reminders to technicians to handle the patient gently so "that pain is never caused as this arouses fear in the mind of the patient and defeats efforts to get his cooperation."70 In this process of remembering, Kenny is cast not as benignly misguided but as inhumane and dangerous.

Reflections on Memorializing and Forgetting

Finally, let me say a little about the historical process of remembering and forgetting. Historians no longer see sources providing simple "accuracy" or allowing us to retrieve objective representations and have to a large extent embraced notions of subjectivity, arguing that there is no uncomplicated validity of any historical source. The recent interest in memory has deepened this turn and in some ways made it even harder to research and write about what we think we know.⁷¹

Remembering is inescapable when we think about our current lives and imagine ourselves and others in the past. Yet memories are slippery things. They mold, create, and sustain meanings which inform the present and guide the future. But they are hard to hold on to or to pin down. Perhaps that is why collective memories in the making of memorials are often points of conflict

and always infused with cultural norms of identity and power. Scholars of memory studies over the past decade have seen such acts of memorialization as active; forgetting, in contrast, is assumed to be passive. But, as the case of Sister Kenny suggests, there is also an active process of forgetting whereby certain ways of thinking about historical moments is used to obliterate the memory of distinct people or events, turning some selected memories into authentic representations of the past.

Nurses have long valued remembering and being remembered as the figure—or perhaps spectre—of Florence Nightingale reminds us all. There is a constant professional debate about what the great nurses mean and have meant to the profession, to the nurse/patient relationship, to the dynamics of medical institutions, and to health policy. Like Kenny, Nightingale's character has been inexorably linked to any assessment of her work. The 1936 Warner Brothers movie The White Angel, as later commentators noted, condensed and rewrote crucial elements of Nightingale's life, "omitting her many years of struggle, despair, and even occasional suicidal depression" and turning her instead into "an impulsive young woman who, with tears of her eyes, gets her way by stomping her foot and raising her voice in righteous indignation."72 Nightingale's furniture and clothing have long been prized as ways to capture the essence of who Nightingale really was. Even the opportunity to hear her speak was lauded and commodified in 1948 when a nursing journal advertised what it called "An Irreplaceable Gift"—a recording of Nightingale's voice from 1890, rerecorded in 1939 with an introduction by Adelaide Nutting presented in an "Attractive Souvenir Album" for \$4.25.73 Readers were assumed to value hearing Nightingale's voice; just what she was saying was not mentioned. Nightingale also looms large in assessments of the "right" way to portray nurses at work and at play. Thus, in an article entitled "If Florence Nightingale Could See Them Now," the Washington Post called on the image of Nightingale as a stern, perhaps prudish professional reformer to critique new TV shows in 1989 which portrayed only nurses who "squeal, sigh, sob, giggle, and bounce." In contrast, the Post reporter noted, the little-known 1946 movie Sister Kenny had portrayed a woman "who defied male doctors to bring better care to patients."74

There remains a widespread assumption that Nightingale was a visionary reformer who embraced cutting-edge medical sciences such as bacteriology. Think of the collective shock when medical historian Charles Rosenberg published a provocative analysis which argued that Nightingale's refusal to accept the germ theory underlay her powerful and effective professional reforms. It was not that she did not understand the germ theory; it was that she did and rejected it.⁷⁵ This kind of historical rethinking could have made reading

Notes on Nursing and Notes on Hospitals a completely different experience; yet I do not think it has. There is a resistance to creating new memories or giving new meanings to old ones.

Kenny had desperately hoped for her own lasting legacy, but she has very few memorials in Australia or the United States. In Nobby, where she first practiced, there is a memorial park, and the house where she lived with her mother and Mary has been opened as a museum. To honor the 50th anniversary of her death, donors to the Australian Sister Kenny Memorial Fund established the Sister Elizabeth Kenny Chair in Rural and Remote Nursing at the University of Southern Queensland.⁷⁶ It is a potent reminder of Kenny as connected not to modern, urban medical science but to bush nursing and rural patient care.

There is no special museum in Minneapolis, although Kenny is still fitfully remembered. In 1986, the Kenny Institute celebrated Kenny's 100th birthday, discovering too late her true 1880 birth date. During the celebration, Institute employees wore "Kenny" clothes as they showed children an iron lung, an odd choice considering Kenny's longstanding dislike of iron lungs.⁷⁷ Kenny's place in the region's history was reinforced in 1989 when historian Leonard Wilson devoted eight pages to her in his book on the history of the University of Minnesota's medical school. Wilson praised university faculty members as hospitable and open-minded and suggested that "although her training was that of a nurse, Sister Kenny acted toward poliomyelitis as a Hippocratic physician." The University of Minnesota, he argued, gave Kenny's methods "a full and fair trial when no one else would, to the immeasurable benefit of polio patients during the fifteen years or so before the introduction of polio vaccines." 78 Healing Warrior, a children's book about Kenny published in Minneapolis at the same time, defended Kenny's invention of professional credentials because she believed "doctors wouldn't listen to her if they knew she was not an educated, certified nurse."79

Kenny had an unusual career: crossing boundaries and breaching professional and social mores. She was a nurse who claimed the authority of a scientist, a discoverer, a healer, and a celebrity. Challenging the mostly male world of virologists, orthopedic surgeons, and pediatricians meant using her height, her Australian–Irish humor, and, outside Australia, her identity as an exotic. It meant adopting a distinctive, feminine public persona. Dressed in dramatic hats, Kenny used her title "Sister," ignoring its religious significance for many Americans, and presented herself as a mixture of Florence Nightingale and Marie Curie.

In the eyes of most physicians and scientists, her attitude to medical expertise and scientific evidence marked her as an outsider, despite her efforts to

enter the medical mainstream. But it is through her refusal to be so easily categorized and dismissed that we can start to understand some of the boundaries of medical orthodoxy and recall a time when nurses were outspoken, frank, and dismissive—and got away with it.

Notes

- 1. Naomi Rogers, "The Most Admired Woman in the World: Forgetting and Remembering in the History of Nursing" (Eleanor Krohn Herrmann, lecture, American Association for the History of Nursing, Cleveland, OH, September 26, 2013).
- 2. Nancy Rehkamp to dear friend of Sister Kenny Institute, February 18, 1992, Chris Sharpe collection, in author's possession; [anon], "Major 1992 PR Activities in Conjunction with 50th Anniversary," 1992, Chris Sharpe collection, in author's possession; see also Peg Meier, "When Sister Kenny Came to Minneapolis," *Minneapolis Star Tribune*, December 17, 1992. The Institute merged with Abbott Northwestern Hospital and then with the Allina hospital system and is now the Sister Kenny Rehabilitation Institute.
- 3. "Sister Kenny Recalled on '100th' Birthday—And Again Famous Founder Has Upper Hand," *Minneapolis Star*, September 20, 1986. On the growing invisibility of polio, see Lewis Cope, "What Is Polio," *Minneapolis Star Tribune*, December 17, 1992.
- 4. Mary McCracken and Stuart McCracken, interviews by author, November 6–9, 1992, Caloundra, Queensland.
- 5. The current major biographies on Kenny are Wade Alexander's Sister Elizabeth Kenny: Maverick Heroine of the Polio Treatment Controversy (Rockhampton: Central Queensland University Press, 2002); Victor Cohn's Sister Kenny: The Woman Who Challenged the Doctors (Minneapolis: University of Minnesota Press, 1975); and John R. Wilson's Through Kenny's Eyes: An Exploration of Sister Elizabeth Kenny's Views about Nursing (Townsville: Royal College of Nursing Australia, 1995).
- 6. See Naomi Rogers, *Polio Wars: Sister Kenny and the Golden Age of American Medicine* (New York: Oxford University Press, 2014), 4–6; Alexander, *Maverick Heroine*, 17–30.
- 7. See for example Elizabeth Burchill, Australian Nurses since Nightingale 1860-1990 (Richmond: Spectrum Publications, 1992); Angela Cushing, A Contextual Perspective to Female Nursing in Victoria, 1850-1914 (Geelong: Deakin University Press, 1993); Ruth Lynette Russell, From Nightingale to Now: Nurse Education in Australia (Sydney: Harcourt Brace Jovanovich, 1990); Patricia D'Antonio, American Nursing: A History of Knowledge, Authority, and the Meaning of Work (Baltimore: Johns Hopkins University Press, 2010); and Susan M. Reverby, Ordered to Care: The Dilemma of American Nursing, 1850-1945 (Cambridge: Cambridge University Press, 1987).
- 8. Elizabeth Kenny and Martha Ostenso, *And They Shall Walk: The Life Story of Sister Elizabeth Kenny* (New York: Dodd, Mead, 1943), 23–24.
 - 9. See Rogers, Polio Wars, 6; Alexander, Maverick Heroine, 29-39.
- 10. Interview with Mary McCracken and Stuart McCracken, interview by Victor Cohn, April 14, 1953, Victor Cohn papers in Elizabeth Kenny papers, Minnesota Historical Society, St. Paul, Minnesota (hereafter MHS-K); Victor Cohn, *Sister Kenny*, 69–70. Lucy Lily Stewart was born on October 31, 1916 and was officially adopted May 4, 1926.

- 11. Queensland Royal Commission, "Report of the Queensland Royal Commission on Modern Methods for the Treatment of Infantile Paralysis," *Medical Journal of Australia* 1 (1938): 187–224.
- 12. "Queensland Nurse's Generous Action! Sister Kenny's Treatment for Paralysis a Gift for the Sick Poor," *Australian Women's Weekly*, February 23, 1935, 4.
- 13. Felix Arden, interview by author, September 29, 1992, Brisbane, Queensland; Alexander, *Maverick Heroine*, 105–6.
- 14. On polio's early history, see John R. Paul, *A History of Poliomyelitis* (New Haven: Yale University Press, 1971), 74–97.
- 15. David M. Oshinsky, *Polio: An American Story* (New York: Oxford University Press, 2005), 13–23; Jessie L. Stevenson, "After-Care of Infantile Paralysis," *American Journal of Nursing* 25 (1925): 730–32.
- 16. Robert W. Lovett, *The Treatment of Infantile Paralysis* (Philadelphia: P. Blakiston's Son, 1917); Arthur T. Legg and Janet B. Merrill, *Physical Therapy in Infantile Paralysis* (Hagerstown, MD: W.F. Price, 1932); Robert Bingham, interview by Victor Cohn, May 19, 1955 Cohn papers, MHS-K.
- 17. On Roosevelt and Warm Springs, see Hugh Gregory Gallagher, FDR's Splendid Deception (New York, Dodd, Meads, 1985); Davis W. Houck and Amos Kiewe, FDR's Body Politics: The Rhetoric of Disability (College Station: Texas A&M University Press, 2003); and Amy L. Fairchild, "The Polio Narratives: Dialogues with FDR," Bulletin of the History of Medicine 75 (2001): 488–534.
- 18. Daniel J. Wilson, *Living with Polio: The Epidemic and Its Survivors* (Chicago: University of Chicago Press, 2005), 11–34; Henry O. Kendall, "Some Interesting Observations about the After Care of Infantile Paralysis Patients," *Journal of Exceptional Children* 3 (1937): 107–12; Henry Otis Kendall and Florence P. Kendall, *Care during the Recovery Period in Paralytic Poliomyelitis* (Washington DC: Government Printing Office, 1938).
- 19. Kenny to Sir (Mr. Watson, Under Secretary, Chief Secretary's Department), February 14, 1940, in Home Secretary's Office, Special Batches, Kenny Clinics, 1941–1949, A/31753, Brisbane, Queensland State Archives (hereafter QSA); Kenny, "Complications due to Immobilisation in Cases of Anterior Poliomyelitis," (1939), enclosed in Kenny to Dear Dr. Pye, August 18, 1939, in Home Secretary's Office, Special Batches, Kenny Clinics, 1938–1940, A/31752, QSA.
- 20. Her major textbooks were the following: Elizabeth Kenny, Infantile Paralysis and Cerebral Diplegia: Methods Used for the Restoration of Function (Sydney: Angus and Robertson, 1937); Elizabeth Kenny, Treatment of Infantile Paralysis in the Acute Stage (Minneapolis: Bruce, 1941); John F. Pohl and Elizabeth Kenny, The Kenny Concept of Infantile Paralysis and Its Treatment (Minneapolis: Bruce, 1943); and Elizabeth Kenny, Physical Medicine: The Science of Dermo-Neuro-Muscular Therapy as Applied to Infantile Paralysis (Minneapolis: Bruce, 1946).
 - 21. Kenny to Dear Sir, November 25, 1938, in John R. Wilson private collection.
- 22. Pohl and Kenny, *The Kenny Concept of Infantile Paralysis*, 117–18; Kenny, *Treatment of Infantile Paralysis*, 214.
- 23. Pohl and Kenny, *The Kenny Concept of Infantile Paralysis*, 51–54, 77; Kenny, *Treatment of Infantile Paralysis*, 39–40.
 - 24. Pohl and Kenny, The Kenny Concept of Infantile Paralysis, 51, 55.
 - 25. Rogers, Polio Wars, xvii.
 - 26. Cohn, Sister Kenny, 119.

- 27. K. G. Hansson, "After-Treatment of Poliomyelitis," *Journal of the American Medical Association* 113 (1939): 32–35; Rogers, *Polio Wars*, 12.
 - 28. Oshinsky, Polio, 58-60, 64-69; Rogers, Polio Wars, 14-15.
 - 29. Rogers, Polio Wars, 15.
- 30. Paul, A History, 308–9; Alden Whitman, "Basil O'Connor, Polio Crusader, Died," New York Times, March 10, 1972; Richard Carter, The Gentle Legions (Garden City, NY: Doubleday, 1961), 100–6.
- 31. Kenny and Ostenso, *And They Shall Walk*, 211; see also Basil O'Connor, interview by Cohn, June 20, 1955, Cohn Papers, MHS-K.
- 32. Frank H. Krusen, "Observations on the Kenny Treatment of Poliomyelitis," *Proceedings of the Staff Meetings of the Mayo Clinic* 17 (1942): 450–52; Frank Krusen, interview by Cohn, March 24, 1953, Cohn Papers, MHS-K.
 - 33. Kenny and Ostenso, And They Shall Walk, 217-27; Rogers, Polio Wars, 18-21.
 - 34. Alexander, Maverick Heroine, 118-19.
- 35. Rogers, *Polio Wars*, 20–21; Robert Gurney in Edmund J. Sass, George Gottfried, and Anthony Sorem, eds., *Polio's Legacy: An Oral History* (Lanham, MD: University Press of America, 1996), 25.
 - 36. Rogers, Polio Wars, 54-56, 66-67, 89-90.
- 37. "Sister Kenny: Australian Nurse Demonstrates Her Treatment for Infantile Paralysis," *Life*, September 28, 1942, 73; "Treatment for Polio," *Time Magazine*, August 10, 1942, 46; Lois Maddox Miller, "Sister Kenny Wins Her Fight," *Reader's Digest*, October 1, 1942, 28–30.
- 38. "Leaders in Campaign against Polio Are Honored at Warm Springs," *New York Times*, January 3, 1958.
- 39. "Poliomyelitis Hall of Fame," *The Sister Kenny Network*, accessed February 4, 2014, http://sisterkenny.net/hall_of_fame.html. Hildon suggests that "Kenny's absence from the Hall of Fame is most probably the result of O'Connor's final shameful act of revenge against the woman he privately detested, but was compelled to publicly endorse for fear of losing public support for his fund raising activities. O'Connor had the good fortune to outlive Elizabeth Kenny . . . History isn't just written by winners, it's also written by survivors. How different the Hall of Fame would be if the die had rolled in Kenny's favour."
 - 40. "Sister Kenny," New York Times, December 1, 1952.
- 41. Claus W. Jungeblut, letter to the editor, *New York Times*, December 2, 1952, Claus W. Jungeblut papers, Box 2, N, National Library of Medicine; see also Rogers, *Polio Wars*, 404–5.
 - 42. "Sister Kenny: H. J. Seddon," British Medical Journal 2 (1952): 1262-63.
- 43. H. J. Seddon, review of *And They Shall Walk*, by Elizabeth Kenny, *British Medical Journal* 1 (1952): 802–3.
 - 44. Mildred Elson, "Sister Elizabeth Kenny," Physical Therapy Review 33 (1953): 81.
- 45. Edith M. Hall, "In the Ward Next to Sister Kenny," *Australian Nurses' Journal* 10 (1981): 57–58.
 - 46. Ibid.
- 47. Helen Gregory, A Tradition of Care: A History of Nursing at the Royal Brisbane Hospital (Brisbane: Boolarong Publication, 1988); Burchill, Australian Nurses since Nightingale.
- 48. Rogers, *Polio Wars*, 56–58, 186, 347; Jonathan Engel, *Doctors and Reformers: Discussion and Debate over Health Policy 1925–1950* (Charleston: University of South Carolina Press, 2002), 291–295.

- 49. Morris Fishbein, *Morris Fishbein, M.D.: An Autobiography* (New York: Doubleday, 1969), 229–34.
 - 50. Ibid.
- 51. Francis Macfarlane Burnet, *Changing Patterns: An Atypical Autobiography* (Melbourne: William Heinemann, 1968), 165–68.
 - 52. Paul, A History, 336, 340-46.
 - 53. Rogers, Polio Wars, 407-9.
 - 54. Robert Bingham, interview by Cohn, May 19, 1955, Cohn Papers, MHS-K.
 - 55. John Enders, phone interview by Cohn, March 28, 1955, Cohn Papers, MHS-K.
 - 56. Rogers, *Polio Wars*, 409–10.
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