

Driving Forces That Transformed the Care of Individuals With Cancer From 1900–1940

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Dramatic forces evolving in the late 19th century contributed to the transformation of the clinical care of individuals with cancer. The building of cancer hospitals, reporting of increasing numbers of cancer cases, medical specialization, and the declared war on cancer contributed significantly to the progress of change. Physician acknowledgment of the growing impact of cancer resulted in the formation of the American Society for the Control of Cancer in 1913. The clinical work of nurses was essential yet overlooked in many historical accounts of the time. Historical research provides evidence of the development of the oncology nursing specialization in the 1900s through the 1940s. Nurses required knowledge, skills, compassion, and fortitude to provide care to individuals with advanced cancers undergoing radical and sometimes dangerous therapies in hospitals and homes. Early nursing leaders provided the vision, established the foundation, and cultivated the passion for the emergence of the specialty.

Hospital Growth

In the late 19th century, influential advocates for the plight of individuals with cancer were calling for change. The building of a specialized cancer hospital was the vision of surgeon J. Marion Sims, MD, known as the Father of Modern Gynecology. Sims founded the New York Women's Hospital, from which he was ejected twice because he broke the rules and admitted women with cancer for surgery (Fleming, Eyre, & Pogue, 2009). In 1883, Sims stated,

A cancer hospital is one of the greatest needs of the day, and it must be built. We want a cancer hospital on its own foundation—wholly independent of all other hospitals. . . . Let me beg you to take steps at

Purpose/Objectives: To identify driving forces that established the groundwork for a more dedicated approach to health care for individuals with cancer in the early 20th century.

Data Sources: Letters, books, and journal articles published in the early 20th century, as well as materials and communications from several archival sources.

Data Synthesis: The increasing incidence of cancer cases and the building of cancer hospitals were among the dramatic forces in the late 19th century that contributed to the transformation of the clinical care of individuals with advanced cancer. Historical research provided evidence for the early development of the specialization of oncology nursing.

Conclusions: In the late 19th and early 20th centuries, the stigma attached to cancer contributed to delays in diagnosis. The great majority of patients were diagnosed with advanced diseases that were incurable. Providing care to patients with cancer was a problem in hospitals and homes. Radical surgeries and the therapeutic use of radium placed unique demands on patients, their family caregivers, and nurses. Nurses adopted new roles and provided detailed bedside care routines; educated patients, families, and the public; published journal articles and textbooks; and advocated for change.

Implications for Nursing: Early leaders provided the vision, established the foundation, and cultivated the passion for the emergence of specialized nurses to provide individualized care to patients with cancer. Oncology nurses and nurse leaders are needed to sustain the continual transformation of the specialty so that the individualized needs of patients with cancer are met.

once to inaugurate a movement which must culminate in a great work so much needed here and now (Memorial Sloan-Kettering Cancer Center, 1984, p. 5).

Two women from the board of the New York Women's Hospital led the way to fulfill Sims' vision. Elizabeth Cullum, her cousin Augusta Astor, and Augusta's husband John Jacob Astor took up the fight against those denying hospitalization to women with cancer. The battle was

tough and only was resolved by the building of a separate hospital for the care of patients with cancer (Fleming et al., 2009).

The building of the first specialized cancer hospital in the United States was a direct response to the pervasive stigma of cancer as an incurable, probably contagious, and unmentionable disease. The Astor Pavilion for Women at the New York Cancer Hospital opened on December 6, 1887, and patients were admitted the following day. The New York Cancer Hospital was the first specialized oncology hospital in the United States, and two of the wards were filled to capacity within the first month. Each circular ward had 11 beds with an adjoining room that had two beds. At the time, the Astor Pavilion accommodated a total of 70 patients (K. Brennan, personal communication, July 19, 2010). In a short period of time, the stigma of cancer as an incurable disease earned the New York Cancer Hospital an unfortunate reputation. The hospital was referred to as the “Bastille of uptown Manhattan”—a place to be avoided by patients and patrons alike (Patterson, 1987, p. 39). The New York Cancer Hospital changed its name in 1899 to General Memorial Hospital in an effort to improve its image. In 1916, the hospital’s name was changed again to Memorial Hospital for the Treatment of Cancer and Allied Diseases.

The development of the cancer research laboratory is attributed to Roswell Park, MD, a professor of surgery in the School of Medicine at the University of Buffalo (Mirand, 1998). By collaborating with high profile community and political leaders, Park was able to obtain funding from the state government of New York. This approach to supporting cancer research was unprecedented (Mirand, 1998). Park requested that the state of New York provide a \$10,000 grant to establish a cancer laboratory. Originally designated as the New York State Pathological Laboratory of the University of Buffalo, this three-room laboratory was the first in the United States with a staff from a variety of disciplines dedicated to the study of cancer (Mirand, 1998). This partnership model gained acceptance in the United States and around the world. As the laboratory quickly outgrew its small designated space, the larger Gratwick Research Laboratory was built and opened through the generosity of community donors. In 1912, Park led the movement to transfer ownership of the laboratory to the state of New York, when it became the New York State Institute for the Study of Malignant Diseases. To apply research findings to the clinical treatment of human participants, the Cary Pavilion (named after Charles Cary, MD, an early trustee) opened as the first hospital associated with this research laboratory. In 1913, the hospital initially accommodated 30 patients (Mirand, 1998).

Trends in cancer hospital growth continued. The Cancer Commission of Harvard University was established in 1909 and restricted research to laboratory investigation. In 1912, the Colin P. Huntington Memorial Hospital for

Cancer Research opened in Boston (Greenough & Ordway, 1912).

The most important feature of the Huntington Hospital is the fact that it is a research hospital devoted to the study of cancer, and that the facilities for carrying on this study by means known to medical science are readily available in the laboratories of Harvard Medical School (Greenough & Ordway, 1912, p. 259).

The three-story facility accommodated 25 patients (Greenough & Ordway, 1912). Later, the hospital became associated with Massachusetts General Hospital (J. Eckert, personal communication, February 10, 2010).

By the 1930s, the influences of technology, evolving specialization of medical practices, and new medical and surgical procedures changed the emphasis of care offered by hospitals (Howell, 1995). Hospitals had become big businesses in the American economy (Reverby, 1987), and cancer hospitals became centers for the development of surgical and radiotherapeutic treatments for cancer (Starr, 1982). Hospitals were no longer places where people with cancer went to die. However, the care required by patients with advanced cancers was a burden for general hospitals, which preferred to take patients with acute problems that were resolvable. With hospitals unwilling to accept patients with advanced cancers, most died at home in the care of their families (Eaves, 1928).

Evidence showed the public’s inability to provide care to the terminally ill in their homes. Social Service Department records at Memorial Hospital for the Treatment of Cancer and Allied Diseases showed that during a one-year period from 1920–1921, 1,000 patients with cancer received nursing care services at home (Wollnik, 1984). Their social service workers negotiated the transfer of patients for terminal care to Calvary Hospital, St. Rose’s Home, Brooke’s Foundation, and the Convalescent Home for Children (Wollnik, 1984). Those types of facilities for the care of the terminally ill were scarce and very small.

The need for homecare services was increasing. Case notes written by one nurse described the scene at the home of a patient with advanced cancer.

We found her one sweltering August day in a dirty airless tenement swarming with children. She was an advanced breast case and in very deplorable condition. Her nurse visited her every day and taught her husband how to care for her at night. As the disease progressed the oldest daughter went home from school early to relieve her father and to take care of the mother’s wants. This was a highly successful arrangement and the child did wonderful work (Wollnik, 1984, p. 22).

The number of homecare cases per nurse grew rapidly. In 1925, the Social Service Department at Memorial Hospital consisted of five nurses, a secretary, and the

director. In that year, the homecare nurses made 12,140 patient home visits for an average of 6.9 visits per nurse per day, providing care directed by Memorial Hospital doctors. Homecare nurses dressed wounds, gave general nursing care such as baths and medications, and taught families how to care for their loved one with advanced cancer (Wollnik, 1984).

Many patients with cancer were abandoned by their medical providers and were not getting the care at home that they required during the dying process. According to Eaves (1928), the care of the terminally ill at home required skilled nursing care.

A merciful conspiracy of reserve has drawn a veil over the distressing details of the difficulties which must be met when the terminal cases of cancer are nursed in private homes—particularly when these are overcrowded quarters into which urban families have been forced. General hospitals often refuse to take chronic cases because more can be accomplished when care is given to patients with acute maladies for which improvement or cure might be expected. Only about 5% of the population of the United States is included in the income classes which might be expected to employ trained nurses in their homes. This large, rapidly-increasing group of sufferers must be cared for chiefly by relatives, friends or attendants who are in great need of expert advice and guidance in order that they may perform skillfully the varied services required by persons dying of cancer (Eaves, 1928, p. 240).

Increased Reporting of Cancer Cases

In the early 1900s, statistical data showed a shift in causes of death. Beitler (1915), chief of the Bureau of Vital Statistics, Maryland Department of Health, presented population and mortality data that showed a decline of the death rate in several major infectious diseases (namely tuberculosis, typhoid fever, and pneumonia) in contrast to the steady increase in cancer mortality from 1904–1913.

This represents an increase of 12.5% in cancer mortality per one hundred thousand for a 10 year period. Cancer is more common in women than men. In 1903, 38% of all cancer deaths occurred in men, while 62% occurred in women. Only 10 years later, 40% of cancer mortality occurred in men, whereas 60% occurred in women (Beitler, 1915, pp. 1324–1325).

According to Beitler (1915), early statistical data were difficult to interpret. Beitler (1915) described the information regarding the site of cancer or organ involved as poorly classified. The most frequent sites of cancer in order of frequency were the stomach and liver, female genital organs, intestines, and breast. In the 10-year pe-

riod from 1904–1913, prevalence of all forms of cancer increased. The most marked increase was seen in cancers of the intestines (46%) and the mouth (41%) (Beitler, 1915).

Interest in the cancer problem was gaining momentum. Hoffman (1913), a life insurance statistician, reported a “rapid increase in the incidence of cancer causing it to rise from the 10th most common cause of death to the fourth most common cause of death in the first decade of the new century” (p. 88). His presentation at the American Gynecological Society meeting entitled *The Menace of Cancer* was not only a statistical report, but a graphic description of suffering and a passionate plea for urgent attention to the cancer problem.

To relieve the horrible sufferings of prolonged nausea, the intolerable distress of continuous vomiting, the excruciating pangs of prolonged starvation, the terrible shock of constant pain, the keen distress of abdominal tension, the indescribable torture of protracted insomnia, the unparalleled agony of a living death, are all worthy of our consideration (Hoffman, 1913, p. 89).

The presentation concluded with insightful recommendations, such as the need for public education about early detection and investigation of cancer incidence, geographic distribution, and mortality (Hoffman, 1913). Hoffman’s words inspired the beginning of the war on cancer. One of the gynecologists in attendance was Clement Cleveland, MD, from General Memorial Hospital in New York. After that meeting, Cleveland was asked to gather representatives from professional organizations interested in tackling the cancer problem (Fleming et al., 2009).

The momentum to establish a national organization to address the cancer problem grew. Following a meeting in Cleveland’s home, the American Association for the Control of Cancer was established. A small group of physicians representing the American Medical Association, the American Gynecological Society, and the Clinical Congresses of Surgeons of North America, as well as business leaders dismayed by the growing numbers of advanced stages of cancer cases and mortality rates, joined the effort. This organization was the precursor of the American Cancer Society, and its primary purpose was to educate the public to recognize the early symptoms of cancer when cure is most probable. The most consistent message from medical professionals at the time was that cancer could be cured with a surgical knife if diagnosed early enough (Childe, 1906; Patterson, 1987). Despite this message and increased efforts of public education, the public feared operations and believed that a cancer diagnosis meant a certain and painful death.

In an effort to recruit nurses to the war on cancer, physicians frequently wrote for the *American Journal of Nursing*. Many of those publications focused on the

potential role of the bedside nurse in the cancer control effort (Broun, 1925; Horsley, 1924; Lee, 1930; Levin, 1927; Ward, 1930; Woglom, 1930). Horsley (1924) instructed “nurses to inform themselves of the truths concerning cancer and to take advantage of all opportunities to help educate people and thus aid the control of this partially unnecessary cause of death” (p. 619). Horsley (1924), who wanted nurses to know the danger signals of cancer and to encourage others to seek competent treatment, preached one of the slogans of the American Association

Patients with cancer as well as physicians and hospitals needed nurses to expand their clinical roles. Indeed, nurses brought forth a new type of leadership.

for the Control of Cancer: “Act in time” (p. 620). Broun (1925) added, “Nurses have been highly trained. Their advice is valued and accepted. They have great opportunities to save lives” (p. 194). Levin (1927) described two important functions of nurses: (a) to educate families, relatives, and friends of patients with cancer with regard to the essential facts of cancer control and early detection, and (b) to care for patients with advanced disease. Levin (1927) stated, “The hard work of nurses in the cancer hospital contributes to dispelling the prevalent opinion of the hopelessness of the cancer situation and the ennobling of the nursing profession” (p. 89).

Technology and Radical Surgeries

The use of anesthesia, aseptic and antiseptic techniques, and the development of x-rays enabled a greater range and volume of surgeries (Buchanan, 1996; Howell, 1995; Starr, 1982). Growth in the volume of surgical procedures provided the basis for expansion and profit in hospital care (Starr, 1982). As early as 1889, Halsted performed the first radical mastectomy (Patterson, 1987). He developed the radical mastectomy technique (en bloc removal of the entire breast, regional lymphatics, and pectoralis major and minor muscles), a classic example of a “complete operation” to remove all the cancer cells from the human body in an effort to cure the cancer (Aronowitz, 2007, p. 88). Halsted published a review of cases showing a decrease in postoperative recurrence rates in 1894 and reported that some hope of cure existed with radical surgery of breast cancer in 1907. As a professor of surgery at Johns Hopkins Hospital, Halsted trained generations of surgeons to imitate his practices. Through the efforts of Halsted and his trainees, the “complete operation” became the standard surgical approach to breast cancer for decades.

Radical surgeries commonly were performed for head and neck, lung, bladder, gastric, breast, and uterine cancers. Those radical interventions placed unique

demands on the recovery of patients, the abilities of family caregivers, and the skills of the nurse (Reverby, 1987). Doctors and nurses wrote textbooks to educate nurses. Barton (1923), the late matron of the Chelsea Infirmary, wrote *How to Nurse Cancer Patients*. The pocket-size textbook was divided into 10 chapters, with half addressing the care required by the operable patient and the other half addressing the nursing care of inoperable cancers. Barton (1923) wrote about the care of the woman who has undergone breast surgery in a simple and practical way.

The nursing care after the excision of the breast for cancer is that required for any major operation. Oozing from the wound is bound to be present, necessitating packing of the dressing for the first day. The arm is placed by the side, resting on a pillow, though some surgeons prefer it stretched out at right angles to the body. A small drainage tube will be placed during the operation (pp. 31–34).

A surgeon and nurse team, Ralph Colp, MD, and Manelva Keller, RN (1929), published the second edition of their *Textbook of Surgical Nursing*. They wrote in the preface that the entire book had been rewritten to keep pace with the advances in surgery and surgical nursing. Colp praised the value of the nurse.

Today the vision of surgery is glorious. The surgeon is recognized as indispensable. The growth of the highly competent, scientifically trained nursing staff has more than doubled the good results of his work. The rise of modern surgery is contemporaneous with the beginning of a careful, trained nursing body. This is more than just historical coincidence, for since that time the increasing demands of medical and surgical knowledge have revolutionized the nursing craft. Today the surgeon in the operating room of the hospital or in the private home has come to rely absolutely on a highly educated and trained nurse (Colp & Keller, 1929, pp. ix–x).

A nurse, Bertha Harmer (1931), wrote *The Principles and Practice of Nursing* as a textbook for schools of nursing. In the second edition, she wrote a chapter titled, “Nursing in the Prevention and Cure of Surgical Diseases.” The terms *cancer* or *carcinoma* are not listed in the index. Harmer (1931) described patients as heroic and encouraged nurses to remember the importance of their role in the life and death nature of patients receiving surgery.

Uncertainty About Radium Therapy

Along with the development of radical surgical procedures, physicians were exploring the therapeutic use of radium as an acceptable therapeutic option for many forms of superficial cancers. In addition, radium was being used in experimental ways with other cancers

(Aronowitz, 2007). In the 1920s, the use of radium as a cancer treatment was common in institutions, as well as by physicians in private practices (Gibson, 1924).

Emergence of Specialized Nurses

The dramatic forces converged, creating momentum for a new emerging specialty with nursing. Patients with cancer as well as physicians and hospitals needed nurses to expand their clinical roles. Indeed, nurses brought forth a new type of leadership.

Anna Lemira Gibson (see Figure 1) was among the first 592 RNs licensed by the Commonwealth of Massachusetts. The Massachusetts Board of Registration in Nursing was created in 1910, and licenses were issued for the very first time (M.E. Barse, personal communication, March 13, 2009). Twenty years later, Gibson was showcased in the *American Journal of Nursing* as a specialist in the nursing care of patients with cancer (Conover, 1930) during her tenure as the assistant superintendent at the Collis P. Huntington Hospital. According to a colleague,

[Gibson] liked to teach and began sharing her knowledge with staff nurses. At the direct request of her medical colleagues, she started regular classes for the nurses in clinical technic. As no charts or textbooks were available for this group of students, she published her own (Conover, 1930, p. 1040).

Gibson communicated her expertise through numerous publications. In 1923, she reviewed *Clinical Laboratory Methods* by Russell Haden, MD. She described the book as a practical handbook for an experienced laboratory worker, but criticized the text as “an incomplete reference that was short and terse with an avoidance of detail” (Gibson, 1923, p. 910). To fill the gap for nurses, Gibson published her own book, *Clinical Laboratory Technic for Nurses*, in 1922. In the preface, she stated that her book was a simple and comprehensive textbook that owed its existence to the frequent requests on the part of graduate nurses for instruction in laboratory procedures. Gibson (1924) later published “Radium Therapy,” in which she clearly described the physics of radium, the instruments used to deliver radium treatments, the actions on cells, symptoms and treatments, and dangers to workers. Gibson wrote that nurses needed to understand fundamental facts regarding radium and the care of patients receiving treatment. Gibson also defined the therapeutic uses of radium in the curative and palliative arenas. She cautioned nurses about the real dangers of working with radium and strongly advised radiation safety techniques. Gibson (1930) also wrote “Radium, Radon, Radiumtherapy.”

Gibson’s publications were detail oriented; she was a photographer and, unlike her physicians colleagues, she included photos of patients in her publications, as opposed to images of body parts or pathology speci-



Figure 1. Anna L. Gibson, RN

Note. From “Some Specialists,” by M. Conover, 1930, *American Journal of Nursing*, 30, p. 1039. Copyright 1930 by Wolters Klowers Health. Reprinted with permission.

mens. Gibson included before and after photos of typical patients who benefitted from radium treatment. As a comparison, she included photos of a patient with advanced disease too late to be treated successfully (Gibson, 1930). Gibson acknowledged that the care of patients treated for malignant disease was challenging and that many nurses refused to take cancer cases because of the stigma of the disease or because they believed the disease was contagious. She reassured nurses that although many questions about cancer were left unanswered at that time, cancer was *not* contagious (Gibson, 1930).

Other nursing leaders also were developing and expanding the role of the nurse caring for patients with cancer. In 1930, Anne Ferris, the director of nursing at Memorial Hospital for the Treatment of Cancer and Allied Diseases, wrote about recent developments in the nursing care of patients with cancer and the need for care given by specialized nurses. She described intense patient care routines in great detail, as well as instances when nurses needed to be creative and aggressive about comfort measures. In addition, Ferris (1930) wrote about anticipating common oncologic emergencies.

Cancer nursing education began to evolve. As a visionary leader, Ferris was aware of the importance of continuing nursing education. In 1934, she established a weekly

educational series for the nurses on their off-duty time (Wollnik, 1984). On the 50th anniversary of Memorial Hospital on May 25, 1934, Ferris was the chairperson of a nursing educational program entitled "A Symposia on the Types of Cancer and of the Nursing Care of Cancer Patients" (Wollnik, 1984). A multidisciplinary nursing educational program included remarks by James Ewing, MD, Mary Roberts, RN, and Valda Johnson, RN. In 1939, Ferris appointed Suzanne Charles to be the first educational director at Memorial Hospital. According to Ferris, Charles' job was (a) to survey educational needs and set up programs of instruction, (b) help the faculty group standardize the nursing care provided on various services, (c) guide new nurses to make a good adjustment to the hospital and nursing services, (d) help staff nurses give intelligent care in different or specialized nursing situations, (e) and plan a program for professional growth of the nursing staff (Wollnik, 1984).

Conclusions

In the early 20th century, building cancer hospitals, reporting increasing numbers of cancer cases, medical

specialization, and the declared war on cancer were among the dramatic forces that contributed significantly to a great transformation in the treatment and care of individuals with cancer. Early nursing leaders acknowledged and created change in response to those forces. Despite tremendous challenges, the specialization of oncology nursing emerged.

The author gratefully acknowledges the support and guidance of Arlene W. Keeling, PhD, RN, FAAN, the Centennial Distinguished Professor of Nursing, director of the Center for Nursing Historical Inquiry, and chair of the Department of Acute and Specialty Care, and Linda Hanson, MSM, assistant in the Center for Nursing Historical Inquiry, both in the School of Nursing at the University of Virginia in Charlottesville. This article is from "Overlooked Soldiers" to Clinical Experts: The Emergence of Oncology Nursing as a Specialization, 1900–1975," a special session presented at the Oncology Nursing Society 35th Annual Congress in May 2010.

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Digital Object Identifier: 10.1188/11.S1.ONF.E15-E20

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