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Nursing's Central Role in the Care of Individuals With Cancer: 1900–1940

Brigid Lusk, PhD, RN

Above all else, patients with cancer during the early decades of the 20th century needed the care of nurses. As one physician wrote in 1913, the care of a patient with cancer under a physician's direction "often devolves upon the nurse, whether the case belongs to the curable or incurable class" (Lindsay, 1913, p. 155). In the 1940s, a nurse considered that cancer nursing "provides one of the greatest opportunities to practice nursing as an art" (Smith, 1947, p. 28). Individuals with cancer required extensive nursing care. They needed nurses to support them emotionally; cleanse and dress their wounds; nourish them; relieve their pain; and help them keep clean, warm, and dry. However, the role of nurses has long been misunderstood or downplayed, and even nurses themselves have difficulty defining their profession. As author Suzanne Gordon wrote, "The odds against nurses seem to have produced a persistent and somewhat crippling identity crisis" (Gordon, 2005, p. 14). This article will argue that nurses could be termed *overlooked soldiers* in the war against cancer.

From 1900–1940, great changes occurred in the care of patients with cancer. Safer anesthesia, more complex surgeries, and the advent of radiation therapy were responsible, in part, for moving cancer treatment from home to the hospital. The specialization of cancer nursing began to evolve against a backdrop of more standardized general nursing education (Lusk, 2005). Over the course of those years, a diagnosis of cancer lost some of its dread; people started to talk about the war on cancer with some hope of winning. However, cancer appeared to be gaining ground as other diseases receded. The American Society for the Control of Cancer (ASCC) stated in 1931 that, although cancer was the sixth most frequent cause of death in New York after tuberculosis, pneumonia, heart disease, nephritis, and cerebral hemorrhage, in 1929 it ranked second only to heart disease in terms of mortality (ASCC Publica-

Purpose/Objectives: To document the central role of nursing care in the continuum of cancer awareness, treatment, and palliation from 1900–1940.

Data Sources: Primary sources were student nurses' lecture notes, hospitals' annual reports and other literature, and published materials of the period.

Data Synthesis: Throughout the years reviewed, the warning signs of many types of cancer were included in nurses' education. Nurses were integral to the care and well-being of individuals diagnosed with cancer.

Conclusions: In the first four decades of the 20th century, nursing care of individuals with cancer became increasingly technical and specialized. This article documents the nursing care that was practiced at the time. The issue of concealment of a cancer diagnosis affected nurses' care. Nurses were seen by the American Society for the Control of Cancer as key players in the public's awareness of cancer.

Implications for Nursing: The care, skill, and knowledge of nurses were central to patients coping with a cancer diagnosis.

tions and Reports, 1931). Therefore, the role of nurses remained pivotal. Throughout those years, patients with cancer continued to need extensive and complex nursing care. Many patients with cancer eventually died, and the patients and their families needed nurses to assist them through the difficult end-of-life process. In addition, cancer was perceived as more a woman's disease in those years and nurses, primarily women, were essential to cancer education.

The Work of Cancer Nursing

One nurse in the early 1920s termed cancer "this most suffering disease" (Barton, 1923, p. vi), and it surely was. Mary Watson, 65 years old in 1896, suffered from a cancerous growth on her face. Her long-time nurse,

Rose Hawthorne, wrote,

Her face was so terrible when wholly exposed, that I trembled as with ague when first put to the “dressing” of it. This process was quite elaborate, so that I had my initiation with thoroughness (Hawthorne, 1901, p. 15).

According to Hawthorne’s notes, Watson was

... face dressed with strong creolin and boric salve. Washed with peroxide, as I wish to cleanse it very thoroughly once a week. Much pain. Morphine pills twice or three times a day (1/6 grain) (Hawthorne, 1896, p. 16).

Mary Watson was the first of many patients from 1851–1926 for Hawthorne, who devoted the rest of her life to nursing New York’s indigent who suffered from terminal cancer.

Whether in the home or hospital, cancer nursing was hard work. The New York Cancer Hospital’s 1902 annual report reminded readers that cancer nursing was more intensive and demanding than other types of nursing care (General Memorial Hospital, 1902). Cancer care was an integral part of the work of visiting nurses, and their patients were described frequently in annual reports or other fundraising literature. Although those cases were chosen to generate funds and, therefore, were the most tragic or time-consuming situations, they still illustrated what those nurses had to face. A case from 1909 showed nurses intimately caring for their afflicted patients.

[An African American] man suffering from cancer had been in the hospital nine months and was brought home to die. . . . The patient was so helpless and so swollen that to change the bedding the nurse had to ask for help from several men neighbors. This was an extremely suffering case (Visiting Nurse Society of Philadelphia, 1909, p. 5).

In 1929, nurses at Chicago’s Visiting Nurse Society recorded,

It is not unusual to have a doctor telephone and say, “It is a bad dressing; tell the nurse to do her best,” which means that we must decide what will be most effective. These orders come often when the question is one of controlling the odor as well as . . . keeping the patient comfortable (Visiting Nurse Association Collection, 1929, box 2, folder 5).

Nurses devised many types of inexpensive dressings to soak up profuse cancerous discharges. For bleeding uterine cancers, nurses used ice, hydrogen peroxide, and digital pressure, or tightly packed the cavity with gauze. Hemorrhage was a constant threat from the cancerous growth itself or from surgery or x-ray treatments.

Invariably, pain became an issue that nurses needed to address. Student nurses from Johns Hopkins Hospital

Training School were told in the 1890s to avoid morphine, even after surgery. One student wrote,

The patient should be persuaded to bear the pain, and morphine only given as a last resort, for it prevents healing, the bad effects are shown the following night when the patient craves more, and the habit may be formed (Wood, 1893, p. 110).

In the 1930s, the nursing literature recommended measures such as rest, mental hygiene, warm baths, oil or powder rubs, and clean beds to relieve patients’ pain. Hot stupes (rolls of cloth wrung out from a hot water or hot turpentine solution and placed on the affected area) and dry or wet cupping were sometimes used (Cowan, 1934; Stevens & Ambler, 1932). Recommended drug use started with aspirin or phenacetin for pain, accompa-

The suspicion that cancer was infectious worried patients and nurses alike. Nurses fresh from cancer cases were unwanted in maternity cases and in many other homes.

nied by a sleeping medication (Stevens & Ambler, 1932). When necessary, codeine could be added. Morphine was recommended only when other drugs had failed or in case of hemorrhage. Nurses were cautioned that use of opiates too early resulted in tolerance and, therefore, less relief, as well as concomitant problems of headache, nausea, and loss of appetite. Morphine usually was given orally or rectally and hypodermically if necessary (Cowan, 1934). In the 1940s, nurses still were cautioned about giving morphine to their patients with cancer. They were advised to periodically withhold morphine for 24-hour periods so the patient’s tolerance would be minimized. Alternatives to morphine were suggested, including alcohol injections, operations on nerves, palliative use of x-rays, calcium gluconate, and even cobra venom (Glienke & Kress, 1944).

Throughout the period studied, the suspicion that cancer was infectious worried patients and nurses alike. Nurses fresh from cancer cases were unwanted in maternity cases and in many other homes. Visiting nurses in 1896, discussing their newly developed guidelines, wrote,

Maternity cases soon called for special attention, but we were not willing that they should receive it from the hands of nurses fresh from fever or cancer cases (Jenks, 1896, p. 301).

Even early nursing professional literature admonished nurses who had just returned from a cancer case to do the following.

Before taking another case, she should shampoo her head, and also disinfect her body by frequent soap and water and disinfectant baths (Tufts, 1902, p. 25).

As a result, many nurses who were unable to miss work and were fearful of the disease began to decline patients with cancer. A physician in 1914 wrote of the difficulty that patients with cancer had in hiring nurses, even if they could afford to pay for them (Bainbridge, 1914).

By the 1920s, medical authorities were reassuring the public that cancer was not contagious, but the fear persisted. An example of the fear of becoming infected with this disease was evident in the hundreds of letters received by James B. Murphy, a noted cancer researcher, from 1910–1940. A typical note was the following.

Are there cancer germs? Do cancer germs float in the air with the stench? If there are cancer germs, what should be done to kill them effectively? (Murphy, 1924, box M956).

An area of special relevance to cancer nursing was the issue of whether patients were told of their diagnoses. Common practice during those years was to hide a diagnosis of cancer from the patient and sometimes even the family to maintain hope and not confront patients with alarming news. The following letter from a prospective patient's brother to renowned breast surgeon William Halsted in 1909 exemplifies this attitude of secrecy.

No one has told her that the trouble is probably cancerous and if you can see your way clear to doing so, we should like you to refer to it as a *malignant tumor* which has been the term used by her other doctors. Her son who will be with us is also without acknowledge that it may be cancer (Halsted, 1909, box 32, folder 12).

Patients and their families doubtless suspected what was wrong, but perhaps colluded with their doctors in denying the possibility of cancer. Physicians were responsible for deciding how much of the truth patients should know about their diagnosis, and nurses were expected to comply with that decision, maintaining the deception at all costs. This frequently placed nurses in an awkward position, as they knew their patients' prognosis but could not reveal it during the many hours they gave nursing care. As one author noted, doctor's visits were brief, but the "nurse has to support the patient during the long weary day which follows" (Barton, 1923, p. xi). Several nurse leaders voiced concern about the ethical difficulty of maintaining this deception (Lusk, 2005, 2010).

Nursing Care at the End of Life

Care of the dying was a regular and expected part of oncology nurses' work, and most deaths occurred in patients' homes. Indeed, few hospitals would accept patients who were dying and could not benefit from treatment (Barckley, 1985). Nursing care was critical for those patients. In 1893, the Visiting Nurse Society of Philadelphia advised, "Such sufferers [with cancer] can-

not be cured, but the degradation of their last days may be lessened and the life of their families made tolerable" (M/C 5, series 1, folder 6). Loan closets, established by the American Cancer Society in the 1940s, provided dressings and hospital equipment for patients dying at home (Barckley, 1985). In hospitals, nurses screened their dying patients, cleansed their mouths of dried mucus, kept their tongues and lips moist, and ensured that someone was with them at all times (Philadelphia General Hospital School of Nursing, 1927).

Student nurses' notes and textbooks on cancer throughout the period were solemn; many ended with comments such as "almost invariably fatal" (Palmer, 1911–1912, M/C 12, box 1, folder 3), "the outlook is hopeless" (Stevens & Ambler, 1932, p. 212), "the course is progressively downward" (Stevens & Ambler, 1932, p. 253), or "cancer is usually fatal" (Strumph, 1933–1937a, M/C 67, box 1, series 2, folder 7). However, in concert with the practice of hiding the diagnosis, nurses were admonished to never appear to give up hope (Glienke & Kress, 1944; Philadelphia General Hospital School of Nursing, 1927; Strumph, 1933–1937b). Patients were to be cared for by "happy, willing," and cheerful nurses (Stevens & Ambler, 1932, p. 178).

Surgical Nursing Care

Until the discovery of x-rays in the 1890s, surgical treatment offered the only hope of cure or even palliation, but the complexities of those early cancer operations demanded skilled nursing care. Most surgeries in the early 1900s, if the patient had any means whatsoever, were performed in the patient's home. Unsurprisingly, nurses played a major role in preparing for the surgery. Doctors needed nurses to prepare the patient, the room, the instruments (see Figure 1), and the sponges—fresh



Figure 1. Antique Surgical Equipment

Note. Copyright 2011 by iStockphoto.com/Matthew Zinder. Used with permission.

from the sea and studded with sand and dirt. Nurses scrubbed up, attached mops to forceps, handed doctors the instruments as required, and cared for the patients as they heaved and vomited following ether anesthesia (Hampton, 1893).

In many cases during the preantibiotic era, incisions became grossly infected and patients returned to surgery to have their wounds reopened and irrigated with carbolic solution. The New York Cancer Hospital's records revealed several other postoperative complications requiring nursing observation and intervention, such as inability to void, abdominal distension, and diarrhea (General Memorial Hospital, 1902). The plight of those patients is apparent in the actual patient records. For example, one night shortly after the hospital opened, a patient got out of bed and went to the bathroom. She had undergone a radical mastectomy about a month earlier. The patient fainted in the bathroom and died within a few minutes, although whisky was poured in her mouth and injected under her skin (General Memorial Hospital, 1902). According to Gross (1882), one in 10 women died following mastectomies.

At New York Cancer Hospital in the late 1800s, in addition to amputations of the breast, surgeons excised cancerous portions of bowel, scraped away cancers of the cervix, and performed vaginal or, more rarely, abdominal hysterectomies. The nursing care following such major surgeries for cancer is difficult to elucidate because of minimal documentation of nurses' work; in addition, intimate surgeries involving removal of cancerous private areas (e.g., breast, intestines) were kept secret. However, nurses were privy to the sufferings of those patients and were experts in their postoperative care. An author of a medical textbook apologized for being obliged to write about anything "that might disgust," but said,

The special care required after certain operations, for example, where an artificial opening has been made in the intestinal canal, ought to be provided in institutions. Even the educated and wealthy suffer if they attempt to keep themselves clean instead of trusting to trained nurses. It almost amounts to criminal neglect to leave such sufferers in the homes of the poor (Bainbridge, 1914, p. 435).

From 1900–1940, more complex cancer surgeries were attempted. In addition to radical mastectomies, pioneered by William Halsted, radical surgeries were performed for head and neck cancers; lung, bladder, and gastric tumors; and uterine cancers. The only hope of cure was judged to be through removing the tumor and its entire surrounding tissue. Wounds occasionally were exposed to radium before they were closed, or x-rays were given six weeks after the surgery (Colp & Keller, 1927). Nurses irrigated colostomies, cleansed tracheostomy tubes, inserted feeding tubes, and fitted cups to ureters opening onto the abdominal wall. Nurses kept mastectomy patients sitting

up, supporting the arm of the affected side with pillows, and performed passive exercises with them to prevent adhesions. However, the arm frequently became massively swollen because of lymphatic blockage, and nurses then applied tight bandages in an attempt to reduce the swelling (Colp & Keller, 1927; Darragh, 1925).

Radiologic Nursing Care

Although surgery remained the only feasible option for many cancers, the palliative and even curative potential of radiotherapy, x-rays (see Figure 2), radium, and radon was noted with great interest during the early 1900s. Radiation rapidly became an important new treatment for cancer that appeared to delay most growths, although some were tragically hastened. Radiation also frequently, if temporarily, relieved pain. Nurses routinely were involved in the care of patients who had radiation sickness and were in pain from x-ray burns. In the 1930s, student nurse Edna Strumph recorded the various types of x-ray burns that nurses should be alert for, which she listed as normal, static (because of sparks from the tube), delayed, and overdose (Strumph, 1933–1937c).

Radium, a radioactive element emitting the same gamma rays as x-rays, was more effective in penetrating deep tumors than the x-rays generated by early machines. Concerns with radium were its scarcity, which made it extremely expensive, and the danger presented to those who handled it. Radon, a radionuclide harvested from radium, allowed easier access to the benefits of radiation, but the dangers remained. Radium was implanted in the patient's body cavities as indicated or placed on the surface over a cancerous growth, and radon was inserted in thin tubes or needles and implanted directly into the tumor (Cutler, 1934a, 1934b). Nurses sometimes applied radium to surface cancers and cared for patients while they had radium or radon implanted. Tissue affected by



Figure 2. The First X-Ray Treatment Room

Note. Photo courtesy of Roswell Park Memorial Institute.

radiation oozed and sloughed off, necessitating frequent cleansing and rinsing of the area, clean dressings, control of odor, and making the patient as comfortable as possible. Nurses, often students, were responsible for ensuring that implanted radium did not inadvertently affect healthy tissue while making sure that the tiny needles—a major source of hospital income—did not get lost.

In the early 1900s, no warnings to nurses concerning the danger of radiation through radium or radon exposure were identified. However, by the late 1920s, hospital procedure books did show awareness and concern for nurses' safety. Student nurses were warned,

Radium is as powerful for evil as it is for good. Do not hold the applicator in your hand or carry it in your pocket unless it has been enclosed in a leaden case. Neglect of this warning may result in serious injury to yourself (Lankenau Hospital School of Nursing, 1927, pp. 138–139).

Employees in some institutions were assessed through regular blood counts, and film badges were placed in high radiation areas (Cutler, 1934a, 1934b). In the 1930s, nurses were cautioned to spend as short a time as possible with patients being irradiated, although this was almost impossible (Cowan, 1934; Lankenau Hospital School of Nursing, 1927).

Undergoing radium or radon treatment presented the possibility of significant complications for patients. Their blood vessels could erode or their tissues could swell. Nurses were with patients at all times; therefore, they naturally were the first to respond. A student nurse wrote in 1925, during her lecture on radium therapy, "in cases of hemorrhage, give morphine and call the interne" (Darragh, 1925, M/C 92, box 2). This implies that nurses gave morphine according to standing orders. Those nurses also were told to catheterize without an order if the patient had not voided after six hours following insertion of a radium tube in the cervix. If a cervical hemorrhage occurred, the nurse had to be prepared "to repack" (Darragh, 1925). Those potentially life-saving responsibilities presented more evidence of the critical nature of nursing care in the treatment of cancer.

Deep therapy x-ray machines, effective on deep-seated tumors, were developed in 1922. In many centers, those machines returned x-rays to a major role in cancer care (Strohl, 1999). By the early 1930s, higher voltage x-ray machines were in use, which allowed access to deeper cancers and, being more focused, caused less damage to surrounding tissues.

Nurses as Educators

When ASCC was founded in 1913, its primary focus was the education of physicians and lay people regarding early signs of cancer. Toward this end, nurses were

included in ASCC's educational mission but were not a major focus. However, nurses were well-placed to educate the public about cancer, particularly when it was believed to be a disease of women. A physician wrote,

Her advice upon such matters [cancer detection] is invariably heeded. . . . Nurses should always realize that every slightest suggestion which they may offer regarding medical subjects is received with a degree of respect and consideration not accorded to similar suggestions from other sources (Craig, 1903, p. 14).

Leaders within the ASCC sought to educate nurses by speaking at graduate nurses' associations and publishing in nursing journals, mailing literature to nurses, and making educational films available to nurses' organizations throughout the United States (Soper, 1926). Agreements were reached between the ASCC and the American Nurses Association, the National Organization for Public Health Nursing, and the National League of Nursing Education to facilitate the dissemination of cancer awareness to nurses (Peterson, 1915).

Early cancer detection and treatment were stressed in student nurses' lectures and textbooks. Students were later tested on this material, as revealed through many examination questions taken from throughout the period studied. However, patients continued to ignore their troublesome signs through ignorance or fear, and many physicians also delayed treatments through ignorance. Some improvement was seen by the mid-1920s. In Pennsylvania, from 1910–1923, the average time from the first appearance of symptoms to operation for a superficial cancer had dropped from 18 months to 14.6 months, and the average time from first consultation with a physician to surgery had dropped from 13 months to 4.5 months (Soper, 1926). Even so, much room remained for improvement.

Conclusions

This review of cancer nursing from the first four decades of the 20th century gives some idea of the breadth and responsibilities of this type of nursing care. This article has documented early nurses' skills and compassion for their patients. The nursing procedures associated with radiation administration were complex, dangerous, and fraught with issues of too little information or education.

As cancer was detected more readily and more potentially effective treatments were developed during the period studied, the issue of concealment of a cancer diagnosis is worthy of reflection. This was a common practice, repeated throughout the various sources consulted, but was very disturbing to some nurses of the period. Inherent in the concealment was fear of the patient's reaction to the devastating news of a cancer diagnosis. For many people, being told that they had

cancer was the same as being told that they would die. For those patients, good nursing care was crucial as they recovered or their disease progressed.

This article has attempted to illustrate the critical and central role of nursing care from professional knowledge to emotional support in the U.S. cancer experience from 1900–1940. Physician Neil MacLean captured the thrust of this article when he wrote, “In such a fight [against cancer], a trained nurse is not a private, but an officer” (MacLean, 1919, p. 1678).

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Brigid Lusk, PhD, RN, is a professor and chair of the School of Nursing and Health Studies at Northern Illinois University in DeKalb. No financial relationships to disclose. Lusk can be reached at blusk@niu.edu, with copy to editor at ONFEditor@ons.org. (Submitted October 2010. Accepted for publication March 4, 2011.)

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