Nursing Research: Historical Background and Teaching Information Strategies

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ABSTRACT

The expansion of research-based literature is one of the foremost goals of the nursing profession. Linked to this goal are the utilization and further development of nursing libraries. This paper discusses some historical factors that have influenced nursing literature. It presents a model for teaching graduate nursing students the relationship between research and library information skills.

ONE OF THE most important goals of the nursing profession is the production of a research-based body of literature. Nurses, especially those in academic settings, are now writing the works that will form the nursing library collections of the future. As an emerging profession, nursing provides a unique opportunity to demonstrate the relationship of research to literature, and of libraries and information networks to further research. Investigation of the historical patterns of the research/literature relationships adds another dimension. These observations can in turn be applied to teaching the fundamentals of the research network to nursing students.

HISTORICAL BACKGROUND

The history of nursing reveals attitudes that have long discouraged the expansion of nursing literature, as well as several landmark occasions that encouraged its change and growth. Although nursing as an occupation has a history virtually as old as humanity, nursing literature was almost nonexistent before this century. Nursing encompasses the responsibilities of nurturing—attention to hygiene, food, comfort, and safety. Knowledge of these skills tends to be based on common sense, folklore, and trial and error, rather than on written documents. For the most part, the essential activities that made nursing a distinctive endeavor were passed from one generation of nurses to the next by word of mouth. This did little to foster interest in or understanding of the information process, and perhaps nurses inadvertently limited their access to literature sources.

Nursing care based on nonstructured learning continued for centuries—sometimes with admirable results, as in the nursing orders of Catholic sisters. In other instances the results were deplorable, as exemplified by the Charles Dickens character Sairey Gamp in *The Life and Adventures of Martin Chuzzlewit,* an 1844 novel that drew attention to the state of nursing care in England. At that time, nurses were often uneducated members of the lower social classes who could find no other employment. Nursing care, especially for the poor in public hospitals, was disorganized, unsanitary, and lacking in scientific foundation.

At this bleak point in nursing history, Florence Nightingale, an affluent young woman educated in Latin, mathematics, philosophy, religion, and modern languages, decided to use her resources to reform nursing. Among her numerous achievements in public health, military medicine and hospital administration were two of special interest. The first was recognition of the necessity for collecting scientific data. Her careful documentation and logical planning during the Crimean War have been credited with reducing the death rate of wounded soldiers from 427 per 1,000 to 22 per 1,000 in a six-month period. Because of her abilities with statistics, one writer has called her the "Lady with the Slide Rule" [1]. She was elected to fellowship in the Royal Statistical Society in 1858, and she continued her research in public health and disease prevention for many years after her return to England.

Her second major achievement was the founding of modern nursing education. In 1860, she estab-

lished the Nightingale Training School for Nurses. This involved securing financial support from influential people, designing the curriculum, writing a philosophy of nursing, and determining admission criteria. Of more than a thousand applicants, only thirty students were accepted into the first class. Although St. Thomas' Hospital was chosen for the clinical learning experience, the school was an independent educational institution. Nightingale believed that "a hospital alone was not to be the center for the education and practice of nursing" [2].

With the establishment of the Nightingale Training School and the Nightingale philosophy of nursing education, one might expect to see the beginning of an autonomous profession based on research and scholarship. However, this did not happen—at least not in a unified and clearly defined manner. There are several possible reasons why the growth of nursing literature was slow and fragmented. One reason was the social class structure of Victorian England. Reforming nursing care meant "reforming" the working-class women who had been giving nursing care. Nightingale's rules of personal conduct addressed the issues of sobriety, honesty, and truthfulness; strengthening moral character was as important as teaching technical skills [3]. Also, her system of nursing administration actually divided nurses into two classes. A small number of "gentle women" were recruited and educated for leadership positions as matrons and ward sisters. During the training period they were called "lady probationers" and they were given better living conditions, more lectures, and more time for personal study and professional reading than was given to the working class probationers [4]. It is possible that this two-tier system—one small group of better educated nurses and one large group of technically trained nurses—discouraged broad-based nursing research. It may also account for the indifference to nursing literature that persisted in spite of efforts to improve education.

Another factor that seems to have retarded nursing scholarship was the hospital reform movement. Public pressure for better hospital care increased the demand for more trained nurses. Christopher Maggs, a British nurse historian, observes, "By the end of the nineteenth century, the fad for training nurses had percolated [into] nearly every voluntary hospital as well as many Poor Law infirmaries; now almost every hospital, even if it had only five or so beds, offered to train women as nurses" [5]. The education offered by hospitals varied greatly in quality. In some institutions, student nurses were a cheap source of labor. They were required to work long hours under systems of rigid discipline, and they received little formal instruction. Other hospitals, however, provided varied learning experiences, well-planned classes, and some theoretical foundation. A number of nurse educators did write textbooks for nursing students, but the establishment of nursing libraries was sporadic and limited.

The complicated issues surrounding the notion of nursing as "women's work" undoubtedly played a role in the conflicting attitudes toward the training or educating of nurses. With the industrial revolution and the various feminist movements, both in Europe and the United States, society was forced to consider the idea of women working to support themselves. Feminist leaders asserted that women need not rely on fate, marriage, or charity alone. Finding dignified work became an option for the unmarried or widowed woman. The rapidly proliferating hospital schools of nursing provided career opportunities for many women who could not afford higher education. The economic advantages offered to women in the vocational training approach to nursing may have damaged professional opportunities and obscured the goals of academic nursing education.

There is little doubt that the need for nursing research and academic education was recognized well before 1900. However, change came very slowly. Before 1910, Mary Adelaide Nutting and Isabel Stewart, both nursing professors at Columbia University, made specific efforts to move nursing education into the college or university setting. Over the years, baccalaureate programs increased in number, but it was not until 1965 that the American Nurses' Association articulated that preference in a position paper: "Education for those who work in nursing should take place in institutions of learning within the general system of education" [6].

Concerning the meagerness of nursing research, an editorial in the December 1949 issue of the *American Journal of Nursing* said: "One of the most serious handicaps to effective research in nursing . . . has been our failure to make definite plans for scientific investigation. The nursing profession has made no concerted effort to promote, support, direct, or evaluate research in nursing and there has been no central clearing house for exchange of information" [7]. Three years later, in 1952, the journal *Nursing Research* began publication. An editorial in the first issue cited its two

purposes: "To inform members of the nursing profession and allied professions of the results of scientific studies in nursing, and to stimulate research in nursing" [8]. Both statements indicated that an information imperative had finally surfaced in nursing.

Nursing Literature and Research

The early literature of nursing, beginning with the Nightingale period, is marked by handbooks or textbooks. In some regards, Nightingale's book, *Notes on Nursing: What It Is and What It Is Not,* fits this category [9]. Much was included on practical aspects of the nursing care of patients, as well as philosophical and administrative aspects. The earliest schools of nursing borrowed heavily from the medical literature for instructional materials, and the role played by physicians in early nursing education should not be ignored. One of the first American nursing textbooks, the *New Haven Manual of Nursing,* published in 1879, was written by a committee of physicians and nurses [10].

The documentation of patient care, or the nursing case study, was another early form of nursing literature. The maintenance of written records about the patient's condition, progress, and nursing care was a component of Nightingale's nursing practice. She has been recognized as an innovator in the field of hospital medical records [11]. Although these descriptive reports started as student nurses' educational exercises, they also provided a format for early journal articles. The publication of nursing case studies during the 1920s and 1930s led to the nursing care plan concept, and thus to a clearer definition of nursing as a discipline [12]. In fact, the definition of nursing was and still is a major focus of nursing research projects.

During the 1940s and 1950s attitudes toward higher education began to change in many occupations. College preparation, at least at the baccalaureate level, became the accepted standard for teachers, pharmacists, and other groups who had previously been educated in apprenticeship or vocational-type settings. At this time nursing education itself became a subject of research. Studies were initiated to determine which level of nursing education was most effective, what effect education had on nursing as a career, and what nurses themselves thought about nursing education requirements. As college and university programs increased in number, academic nursing began to use the tools of social science research. Consequently, many nursing studies from the 1950s to the present reflect the influence of psychology, sociology, anthropology, and education. Nurses investigated their own attitudes, their relationships with other health professions, their functions in work and political settings, and numerous other introspective topics.

Nursing studies of patient care also tended to emphasize psychosocial issues. In order to establish nursing as a distinct profession, independent from medicine, much effort was made to avoid the medical model in nursing research. This did not mean that nursing journals or textbooks ceased to publish anything related to the medical care of patients. With the surge of health technology in the 1960s, nurses were faced with the need to understand many new therapies, pharmaceuticals, and pieces of complicated equipment (electronic monitoring systems, respirators, and drug infusion systems, to name a few). Nurses wrote papers to inform their colleagues about the nursing care responsibilities associated with these subjects. Papers of this nature continue to appear in the journals most widely read by hospital nurses. Nurse researchers, however, have tended to avoid pathophysiologic clinical subjects as areas for investigation, and instead have studied psychological, social, or administrative facets of health technology. As the nursing profession becomes more secure in its understanding of itself, it seems likely that nurses will feel free to investigate a broader range of health care questions. Also, as nursing approaches its goal of academic education for entry into practice, nurses will appreciate the importance of having their own literature and information network.

Teaching Approaches

In view of the somewhat halting progress of academic nursing and nursing literature, how can nurses prepare to contribute to the literature? It may be possible to teach library practices and also to convey the pleasures of discovering the information network. At the University of Missouri–Kansas City School of Nursing, students are introduced to library skills in several traditional ways—tours, lectures, exercises, and individual assistance with thesis preparation. However, when they have a theoretical basis, these activities are more meaningful and more enjoyable.

The relationship between nursing research and information can be visualized in several ways. One information concept uses a spiral figure to demonstrate that one piece of research has its foundation in another piece. The circles of the spiral increase in diameter as the literature in the area grows. This has proven to be an effective means of teaching

research replication. Students can see that the author of one study has cited other studies that are similar in nature. With this concept, the use of tertiary sources such as indexes to journal literature is easier to grasp. Providing a concrete reason for attention to details of citations, subject headings, and author statements relieves some of the tedium often associated with library skills classes. Some level of competence with tertiary sources is essential for the review of the literature that precedes the thesis proposal. Nursing students can foresee the possibility of their own theses being cited by future authors, thus widening the circles of the spiral.

The second concept can be illustrated by a web-like network in which one research project influences several other projects that are different from the original piece (Figure 1). This diagram shows students the principles behind indexes such as *Science Citation Index* and *Social Science Citation Index*, so they can visualize the varied reasons for citing an older paper. The newer papers may have used a previous statistical finding, philosophy, or theory, and the newer papers may have supported or refuted the evidence in the previous paper. The web-like network concept teaches the diverging, creative aspects of research; it demonstrates the ways in which a new idea can be triggered by an older article. Students who understand that serendipity can play a role in research are free to explore new ideas and to use their library skills creatively.

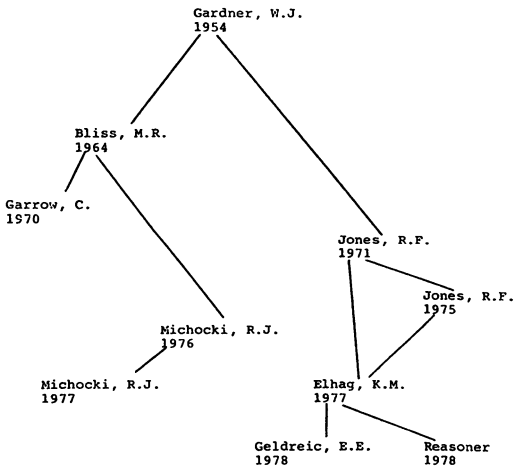

FIG. 1.—In 1954 a physician, W. J. Gardner, and a nurse, R. M. Anderson, published a paper on decubitus ulcers. This study has been cited by other authors, and the later papers have also been cited to form a network of relationships.

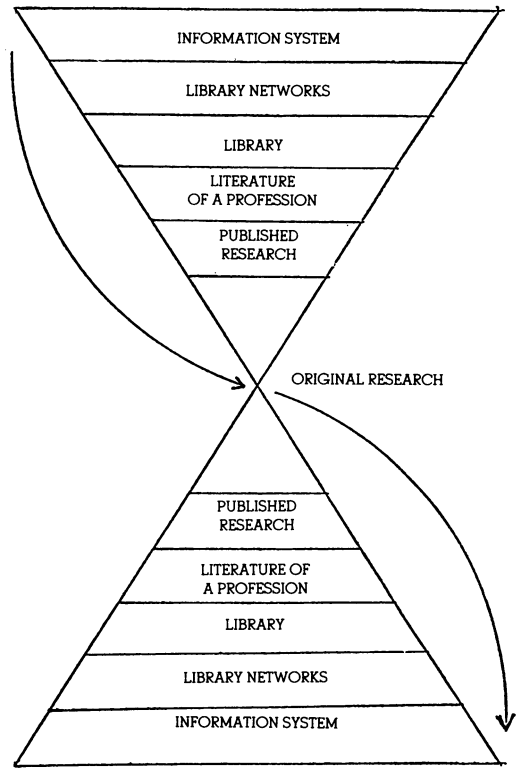

FIG. 2.—Emerging professions use existing information resources in the production of their own literature. As the new literature grows and expands, it forms a similar complex of collections and networks that perpetuate research.

The third concept shows the whole information system centered upon individual units of research literature (Figure 2). This diagram is formed by two pyramids, one inverted over the other. When a discipline like nursing begins to generate its own body of literature, it inevitably uses the literature of other disciplines. For example, a nursing study may use a test instrument from psychology, a theory from education, or clinical information from pharmacology, medicine, or physiology. The older components of the study come from the established information systems in the inverted pyramid. As the literature of nursing grows, it in turn will form its own information system to be used by future researchers both in nursing and in other fields. This is the upright pyramid. With this concept in mind, the student can understand the value of interlibrary loan processes within regional library network systems and be more comfortable using a variety of libraries within the community to retrieve interdisciplinary works. The concept can also introduce students to the important area of computerized

bibliographic databases and other computerized communication systems. This diagram is the broadest in concept. It demonstrates the interweaving of one discipline's literature with another. It also shows the expansive aspects of information from one unit or document to the sophisticated electronic systems that link scholars worldwide.

Conclusion

Continuing nursing research and nursing literature is dependent upon the acquisition of skills in retrieval and utilization of information. As information systems expand and incorporate current and developing technologies, these skills will become ever more critical. It must become the task of educational institutions to integrate the acquisition of these skills into the learning experiences of students. This requires close collaboration between librarians and nursing faculty. The rewards of this collaboration can be significant both for the discipline and for the individuals involved.

References

1. Winslow CA. Florence Nightingale and public health. Public Health Nurs 1946 July;38(7):330–2.
2. Dolan JA, Fitzpatrick ML, Herrmann EK. Nursing in society: a historical perspective. 15th ed. Philadelphia: W. B. Saunders, 1983:354.
3. Baer ED. Nursing's divided house—an historical view. Nurs Res 1985 Jan–Feb;34(1):32–8.
4. Ibid.
5. Maggs CJ. The registration disputes: the background to the appendix. Bull Hist Nurs Group R Coll Nurs 1984 Spring;4:3–9.
6. American Nurses' Association's first position on education for nursing. Am J Nurs 1965 Dec; 65(12):106–11.
7. Research in nursing (editorial). Am J Nurs 1949 Dec;49(12):743–4.
8. Bunge HL. A cooperative venture. Nurs Res 1952 June;1(1):5.
9. Nightingale F. Notes on nursing: what it is and what it is not. Facsimile of 1st ed. (1946). London: Harrison, 1859.
10. Anderson NE. The historical development of American nursing education. JNE 1981 Jan;20(1):18–36.
11. Cohen IB. Florence Nightingale. Sci Am 1984 Mar;250(3):128–37.
12. Bramwell L. Nursing science: retrospect and prospect. Can Nurse 1985 Mar;81(3):45–8.

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