

The Linacre Quarterly

Volume 44 | Number 4

Article 8

November 1977

Nursing at the Crossroads

Anne Kibrick

Follow this and additional works at: <http://epublications.marquette.edu/lnq>

Recommended Citation

Kibrick, Anne (1977) "Nursing at the Crossroads," *The Linacre Quarterly*: Vol. 44: No. 4, Article 8.
Available at: <http://epublications.marquette.edu/lnq/vol44/iss4/8>

Nursing at the Crossroads

Anne Kibrick, R.N., Ed.D.

Mrs. Kibrick received her master's degree from Columbia University Teachers College and her doctorate from the Harvard University Graduate School of Education. Dean of the Boston University School of Nursing from 1963-68, she was later chairman of the department of nursing at Boston College's Graduate School of Arts and Sciences and currently is professor and chairman of the department of nursing at Boston State College.



Despite hundreds of thousands of dollars spent over the years to determine the most suitable type of nursing education to service the public, despite innumerable man hours that have gone into studying the issue of nursing education, despite the recommendations of scholarly and reputable studies, the problem remains unresolved.

When the American Nurses' Association issued its Position Paper on nursing education in 1965¹ it was hoped that its recommendations would be supported by the profession. The main points of the paper were: education for all who are licensed to practice nursing should take place in institutions of higher education; minimum preparation for beginning professional nursing practice should be baccalaureate degree education in nursing; and minimum preparation for beginning technical nursing practice should be associate degree education in nursing.

This was not a new position, nor did it reflect the opinions of nurses alone. In 1918 a conference of men and women active in the field of public health, general education and higher education² studied nursing in this country and agreed unanimously that the preparation of the professional nurse belonged squarely within institutions of higher learning.

In 1926 a committee of physicians, nurses and representatives of the public and the field of higher education³ recommended that education for nursing, like education for other professional service occu-

pations (such as medicine and teaching) should be a public responsibility and that the cost of such education should come from private and public funds, not from hospitals. The conclusion that professional nurses should be prepared in institutions of higher learning was reconfirmed in 1948 by two additional broad-based studies directed by non-nurses. One, chaired by Ginzberg,⁴ set a goal for 1960 of two types of educational programs for nurses, namely, a one-year program for practical nurses and a four-year program in a college or university for the professional nurse. This study assumed the gradual disappearance of the three-year hospital-based program from which 90% of the registered nurses were then drawn. Another, directed by Brown,⁵ looked at nursing service and nursing education in terms of what was best for society. This report recommended that nursing programs be established in institutions of higher learning and that competing diploma programs be eliminated. These positions were reiterated in 1967 by the National Advisory Commission on Health Manpower⁶ and again in 1971 by the National Commission for the Study of Nursing and Nursing Education.⁷ Thus, over the past 60 years informed educators, interested citizens and the nurses and physicians who have participated in these studies have agreed that education for nursing practice should be the responsibility of colleges and universities if the health objectives of the nation are to be met.

These studies have been widely read by nurses, the recommendations have been noted and the reports placed on library shelves to gather dust. The nursing profession must take responsibility for the fact that the recommendations of these studies have not been implemented. Admittedly, the disagreement concerning basic nursing education is not easily resolved. Unlike other professional groups, nursing offers a variety of programs that prepare for nursing practice. The graduates of each type of program continue to support their type of preparation while directors and faculty members "keep the debate alive and reinforce the students' beliefs."⁸ The protection of vested interests has continued to prevail over an objective appraisal of what type of nursing education would best serve the health needs of the people. Accountability to the needs of society and the development of the profession is more essential than loyalty to a specific type of program. The fact that one can prepare for the same license by attending two, three or four year programs is a serious disadvantage in setting standards of professional practice. Until nurses themselves are willing to agree that the three existing types of programs do not prepare for the same responsibilities we will continue to confuse the public and nurses themselves regarding standards and expectations of professional nurse practice. Nurses should begin to view their education and role performance in comparison to other health professionals rather than as one type of nursing education compared to another type.

Over the past 12 years there has been a slight steady increase in the numbers of nursing programs in the United States. Noticeable, however, is the shift in the relationship among these programs. See Table I.

Table I
Number of Nursing Education Programs by Type⁹

Year	Diploma		Associate Degree		Baccalaureate		Total
	Number	% of Total	Number	% of Total	Number	% of Total	
1965	821	69	174	14	198	17	1,193
1968	728	56	330	26	235	18	1,293
1971	641	47	444	33	270	20	1,355
1974	462	33	605	44	314	23	1,381
1977	390	28	642	47	341	25	1,373

Until 1971 diploma programs were the most numerous. They have been replaced by associate degree programs which now represent 47% of all nursing programs. Altman,¹⁰ in 1971, predicted that diploma programs would become extinct or nearly so by 1980. It now appears that 1990 is a more reasonable date and in the intervening years we will continue to graduate from non-baccalaureate programs nurses who, as a result, will be distinctly disadvantaged in terms of professional status, job opportunities and upward mobility.

Quality Education Expensive

Maintaining a quality nursing education program is an expensive matter. The rapid growth of all health professional programs since World War II has been accompanied by concern for their financial stability. A principal objective of both the 1971 Comprehensive Health Manpower Training Act and the Nurse's Training Act of 1971 was to provide financial support for education in the health programs by means of capitation grants. There has been a dependence between the health care delivery system and the schools in providing for national health manpower needs. As federal dollars for educating health professionals have increased, so has the government's interest in a stable base of support for such programs.

At the request of Congress, the Institute of Medicine was commissioned to carry out a study to determine the costs of education of the various health professionals including nurses and to make recommendations regarding capitation grants for these groups. The capitation grants were a response to the financial distress of schools in the late 1960's and early 1970's. Financial pressures on schools were forcing many to close.

We might like to think that it is the nursing profession's concern for optimal education of nurses that has been responsible for the phasing out of some diploma programs but it might be more accurate to

acknowledge that closures have often been due to financial pressures reflected by annual deficits as high as \$500,000 per year or more. The average cost of educating a nursing student varies according to the type of program and is highest in diploma programs. See Table II.

Table II
The Average and Range of Education Costs Per Student
In Sampled Nursing Education Programs, 1972-73¹¹

Program	Education Costs	
	Average	Range
Baccalaureate	\$2,504	\$1,193-\$4,408
Associate	\$1,665	\$1,065-\$2,130
Diploma	\$3,301	\$1,868-\$4,855

Some diploma schools have taken issue with the Institute of Medicine study results since the methodology for determining costs for diploma programs was different from that used for the other nursing and health professional programs. Because the Medicare reporting requirements represented a well-established, uniform cost-finding system that was used by hospitals across the country, the Medicare cost-finding framework for the school's parent hospital was used as the basis for determining per student costs. Based on these figures, diploma programs are reimbursed by third party payers for a large proportion of the cost of the program.¹² For reimbursement these high figures have been acceptable; for comparative costs, however, they are unacceptable to some directors of diploma programs.

The reimbursement issue raises some interesting questions. Who should pay for the nursing education of students in diploma programs? The patient, through higher hospital costs? With rising hospital costs, the question of whether nursing education should be underwritten by patients, or should be part of the tax base, as are many other educational programs, becomes a critical one.

The Institute of Medicine Study recommended a range of capitation between 25 and 40 percent of net education expenditures to help assure the stability of programs. Using the estimated number of 1975 graduates the recommended capitation for all nursing programs ranged from a total of \$81,940,000 to \$130,620,000, fairly equally divided between all schools.¹³ Actual capitation expenditures for nursing in 1976 amounted to \$43,030,950, considerably less than that recommended by the Cost Study to assure financial stability.

All nursing schools are struggling to maintain quality programs. It would be more sensible to support financially those programs that have been recommended by the many studies as the most suitable, namely the baccalaureate programs, rather than to support all programs with resulting inadequate funds for each. If we would reduce

the number of schools, more adequate financial support would be assured for programs in college and university settings. This would also make it easier for students to advance through the educational levels just as is the case with other disciplines and professions. The prevailing practice of each community preparing its own supply of health workers is unique to nursing and contrary to the practice of every other health profession. With our financial restrictions and our persistent shortage of prepared faculty we cannot maintain quality in our many community-based nursing schools.

We should ponder the fact that with 1,657 schools in the United States providing education to the eight health professions, nursing programs represent 1,373 of that number. The downward shift in numbers when one looks at other health profession programs is startling: Medicine — 112 schools; Pharmacy — 73; Dentistry — 56; Veterinary Medicine — 19; Optometry — 12; Osteopathy — 7 and Podiatry — 5.¹⁴ We have neither the finances nor the resources to assure quality education and consequently quality practice. Failure to set priorities in the allocation of available funds for support of collegiate nursing programs cannot continue without serious threat to the survival of the profession of nursing.

In the 1976 Nurse Faculty Census¹⁵ it was pointed out that we had 20,572 full time and 4,121 part-time faculty employed in nursing education programs. In addition, there were 776 unfilled budgeted positions. These vacancies do not include additional positions which are also needed but not budgeted for, because of financial restrictions. We have an extreme shortage of faculty qualified by education and experience to teach. Baccalaureate programs have the largest number of unfilled budgeted positions — 414. Associate degree programs were next with 201 and diploma programs had 161 unfilled budgeted positions. Approximately 3% of the nurse population holds a master's degree and this is considered minimum preparation for teaching — not nearly enough in numbers to meet the needs. We need about 120,000 nurses with graduate degrees; we have about 20,000. Of the full-time faculty in schools of nursing, 4% had a diploma as the highest credential; 1% held only the associate degree; 34% held a baccalaureate degree as the highest credential; 57% held a master's degree and 4% held a doctorate.¹⁶

Flexner's Suggested Reforms

In 1910, Flexner published his evaluation of medical education in the United States.¹⁷ His suggestions for reform were instrumental in bringing about significant changes in the standards, organization and curriculum of medical schools. Among his comments the following points were made. "Progress for the future would seem to require a very much smaller number of schools, better equipped and better conducted than our schools now as a rule are; and the needs of the

public would equally require that we have fewer physicians graduated each year, but that these should be better educated and better trained. With this idea accepted, it necessarily follows that the medical school, if rightly conducted, articulate not only with the University, but with the general system of education." "The higher standard is alike necessary and feasible. How long is it to be postponed because it threatens the existence of this school or that?" "To support all or most present schools at the higher level would be wasteful, even if it were not impractical for they cannot be manned." "Inevitably, then the way to better medical education lies through fewer medical schools." All of these comments are relevant to the status of nursing education today.

A baccalaureate degree is considered more valuable than a diploma or an associate degree by a substantial number of Registered Nurses (RN's) from these latter programs. This is evidenced by the fact that 20% of the baccalaureate graduates in 1970 had previously graduated from other types of nursing programs and this percentage has been steadily increasing. Many nurses are willing to forego immediate earning opportunities in order to obtain a baccalaureate degree. Based on a 1975 survey by the American Hospital Association,¹⁸ of the 21,592 graduating seniors, of whom more than 11,000 responded, 70.6% planned to continue their education. This route to higher education is costly financially, emotionally, and in terms of time invested.

Of the 341 baccalaureate nursing programs, 50 or 14.6% are for registered nurses only.¹⁹ As of October, 1975, 15,854 RN's were enrolled in these programs. The process of admitting RN's to baccalaureate programs is often frustrating to both the school and the student. Even though diploma schools offer basic courses in the natural and social sciences, such course content is very limited in comparison to the courses taken in a college. Although the combination of theory and practical application is essential to professionalism, the three year programs offer relatively little theory, and practice is learned with inadequate reference to a scientific and theoretical base. The graduates of the associate degree programs also have relatively little theory and practice. There is simply not enough time in the academic two year programs (which average 18 months) to offer the quality or depth of education that is essential for professional practice. Often the science courses are combined general science courses that are not comparable to those offered in a four year college program. Consequently, if an RN has graduated from a three year hospital diploma program, she must take standardized challenge examinations in selected natural and social sciences as well as in nursing before she can be given college credit for such courses. This is often the case with graduates of associate degree programs also. The years of experience that an RN may have in one particular field does not exempt her from demonstrating, through examinations, knowledge in all fields of nursing.

Because RN's cannot be accommodated in baccalaureate nursing programs, they often seek to obtain their degrees in non-nursing institutions and receive such degrees as Bachelor of Professional Arts, Bachelor of Health Sciences, Biological Health, etc. Some of these schools award blanket college credit to equal the number of years spent in the nursing program and others add to this, credit for life experience. Hiring institutions do not equate these degrees with advancement in nursing and these graduates often find, to their dismay that they are not eligible for admission to master's programs in nursing. During their experience in the program, or upon graduation, the nurse discovers she has been disadvantaged by having chosen a program other than the baccalaureate degree.

Almost three-quarters of the nurses graduate without baccalaureate degrees. See Table III.

Table III
Graduates by Type of Program ²⁰

Academic Year	Diploma		Associate Degree		Baccalaureate		Total
	Number	% of Total	Number	% of Total	Number	% of Total	
1965-66	26,278	75	2,348	10	5,498	15	35,125
1968-69	25,114	60	8,701	21	8,381	19	42,196
1970-71	22,334	48	14,754	31	9,913	21	47,001
1974-75	21,673	29	32,622	44	21,241	27	74,536
1975-76	19,861	26	35,094	45	22,678	29	77,633

This fact, plus the increasing recognition of the necessity for the baccalaureate degree, has resulted in great numbers of nurses applying to collegiate nursing programs in order to obtain the degree. Almost all baccalaureate nursing programs enroll RN's; however, the demand far exceeds the number which schools can accommodate. Schools that admit RN's often do so by limiting the enrollment of generic students and wrestle with the philosophical question of whether to deny a promising student the opportunity for a career in nursing or permit a practicing nurse to upgrade her preparation. In view of the trend toward requiring baccalaureate degrees some means must be found to help those RN's who wish to acquire the degree. Somewhere along the line, however, we should declare a deadline beyond which we will not accept RN's into generic baccalaureate programs. So long as we continue to admit them we encourage the perpetuation of hospital and community college preparation for professional nursing practice. A basic baccalaureate program is not designed to be built on RN preparation.

While offering three alternative routes to licensure we have been telling non-baccalaureate prepared nurses that they are neither ready for professional practice nor recognized as professional nurses. "In

effect we have been cutting off the puppy dog's tail by inches. It might have been kinder to have done it all at once, with one sharp, clean blow. Then all this agony would be behind us, instead of being re-experienced by each new generation of diploma nurses."²¹ To this group of diploma nurses we could add the associate degree nurses. When associate degree programs were started, back in 1950, they were regarded as technical programs and as terminal in their own right. Over the years, as the profession has emphasized the necessity of a baccalaureate degree for professional practice, they have been increasingly looked upon as preparatory for the baccalaureate degree.

Unemployment is a serious problem in our society, although it has not yet affected nursing to any significant degree. The research division of the National League for Nursing recently completed a sample study in 34 states of newly graduated nurses who passed the licensing exam in 1972. The study uncovered no serious problem of unemployment in nursing. However, educational level and geographic area produced deficiencies in job opportunities. Comparisons of different types of nursing programs by regions indicated a predominant pattern whereby graduates of baccalaureate programs were more likely to be offered two or more positions.

Difficulties Getting Jobs

In a 1975 HEW study,²² it was reported that 25% of the newly licensed nurses had some difficulty in getting the job they wanted. This rate was highest in San Francisco, New York and Boston. The main reason given for not finding their first choice of position was that no jobs were available in the area. Forty percent gave this as the reason. Forty-one percent of the newly licensed nurses from Associate Degree programs (twice as many as graduates from other programs) reported difficulty in obtaining the job they wanted because of the employer's expectations. However, six months after graduation almost all newly licensed nurses who wanted to work were employed. Some compromised on hours of work, salary, work with an employer who was not their first choice, or another field of nursing that was not the first choice. It was pointed out that the estimated need for nurses with baccalaureate degrees was 280,000; the present supply is about 90,000.²³ Nurses with baccalaureate degrees will not be facing a lack of positions whereas other RN's will have an increasingly difficult time.

The question of continuation of hospital and associate degree programs should be raised in light of the shortage of faculty, employment opportunities and the trend toward requiring baccalaureate degrees for professional nursing. In the case of hospital programs the issue of their cost should also be considered.

The transition of nursing programs from hospitals to educational institutions would benefit hospitals as well as nursing education.

Hospitals have a vital role in the education of nurses through their resources and clinical facilities. Because an association with a medical school improves hospital medical practice, hospitals rightfully take pride in their affiliation with a medical school. Hospitals could derive comparable benefits in being connected with collegiate nursing programs. If collegiate nursing schools were to utilize their specialists in assuming the responsibility for nursing care in hospitals, this would upgrade the quality of care and thus improve the clinical teaching to students. In addition, faculty members in schools of nursing could combine research with practice and teaching, thus benefitting both nursing care and nursing education. Hospitals must work with collegiate schools of nursing and engage in a dialogue that will help determine their future relation.

Hospitals are as essential for sound nursing education as they are for medical education. To become effective practitioners, students must be significantly involved in meaningful responsibility for patient care. Hospitals should not, however, administer the nursing education program any more than they administer the medical education program. Both medicine and nursing need a sound theoretical background for intelligent and understanding work with patients. For most effective learning, the hospital experience of the nursing student should be under the direction of the collegiate nurse faculty, just as hospital medical education is under the supervision of the medical-school faculty.²⁴

Hospital programs prepare nurses for work primarily in hospitals. A major argument advanced for retaining hospital schools is that approximately 60% of the graduates remain to work in the hospital. However, many of these remain for only about one year. The difficulty of hospitals in obtaining nursing personnel, admittedly a serious problem, is insufficient justification for hospitals to operate nursing programs. However, this situation is changing. Many hospitals are now unable to employ their own graduates because the supply in many situations far exceeds the demand. Hospital programs, with their focus on the care of the patient in the hospital, deny the needs of many other segments of the population where nursing services are needed. Diploma students do not generally receive experience in public-health or other comprehensive community health agencies, and are unprepared for service in these units. Nursing is moving into the community with an emphasis on health maintenance and disease prevention and with a concern for families as well as individuals. There are a host of health needs in society besides hospital care that nursing must accommodate.

Education for health occupations, in general, has moved out of service institutions into educational institutions. It would be incongruous if professional nursing, with the broadest responsibility for total health care, and co-ordination of all of the appropriate technicians for patient care, remained outside the academic framework. The nurse is

about the only health worker in the hospital who is still not expected to have academic, as well as practical, preparation for her responsibilities in contrast to record librarians, laboratory technicians, medical technicians, dietitians and so forth. Also, in contrast to nurses, a social worker is expected to have a master's degree for initial practice.

Move into Academic Framework

If nursing is to fulfill its obligation to society and maintain its rightful status as one of the major health professions, it must move into the academic framework. State Teachers' Colleges have converted to four-year liberal arts and teacher-education programs to improve the preparation needed for teaching, and also to recruit and retain desirable candidates. The competition from other fields for women's services increases yearly. Nursing education, in changing its philosophical orientation and broadening its scope of responsibility, provides a challenge and opportunity similar to those of other professional groups and, consequently, is in a stronger position to attract and retain the kind of student needed to give quality nursing care and provide leadership in professional nursing practice.

The baccalaureate graduate is the predominant figure in nursing education and is preferred in public health and community health nursing programs, with their needs for initiative and complex psychosocial and health delivery and assessment skills. Despite the lack of indisputable evidence of superior performance, an increasing number of other health agencies, including hospitals, are employing only nurses who hold a baccalaureate degree. The baccalaureate graduate will become more important in the next decade as the health delivery system shifts away from the hospital and episodic treatment in favor of health maintenance. Although there is nothing more certain than change, nothing meets with greater resistance. There has been and still remains a lack of cooperation and agreement upon goals for nursing education. The ANA Position Paper is twelve years old; and yet, non-baccalaureate programs constitute the major source of nursing manpower production. So long as we continue to offer three types of nursing programs we will have continuing competition and hostility among them.²⁵

Lewis²⁶ believes that the nursing profession has done little toward implementing the ANA Position Paper or demonstrating its belief in it. She points out that we continue to accredit three types of nursing programs, that we do not distinguish between them in our licensing procedures, and that the distinction between professional and technical nursing is rarely observed. Any change in our system must be preceded by a basic dissatisfaction with the system and accompanied by a conviction that we can do better. If we are to shape the direction of our profession there must be unity of purpose between participants

in the educational enterprise. The striving to be identified as a professional is a highly motivating factor.

In the absence of leadership from the profession that has stated the need for baccalaureate preparation for nursing but has not consistently acted as though it were important, selected individual state nurses' associations have taken strong positions to bring about changes in licensure laws to require a baccalaureate preparation in nursing as the entry point into licensure.

What direction nursing education takes will be determined by the changes that are taking place around us and the changes we are willing to make. Internal and external pressures are changing expectations for nurses. There is a continuing advance in medical and social sciences resulting in an increase of new knowledge, new skills and new techniques. These advances result in changes in the expectation for health professionals, and programs must be geared to adapt to these expectations. Society is becoming more sophisticated about personal and social health problems; a more affluent society is more demanding of health services. Increasingly, the consumer at all levels is demanding quality health care, greater accessibility of health services through community-centered agencies and wants to be involved in the evaluation of the care provided. Programs must be sensitive to the political and social pressures as well as the new knowledge.

New patterns of delivery of care will continue to emerge as new health legislation is enacted. If nurses are prepared at a professional level they will have the opportunity to extend and enlarge their functions to meet the health and nursing needs of the people and to work collaboratively in a colleague relationship with other health workers.

Nursing alone is in control of its destiny. It can make the decision to maintain the status quo or it can move to implement the recommendations of studies done over the past 60 years concerning the type of nursing education that is best for society, and the recommendations of the ANA Position Paper which looked at what is best for the profession as well as the public. This decision will have an impact on the quality of nursing care provided, the economic stability of the programs, the recognition of nursing as a profession by both the public and other health professional groups, the influence of nursing in the political process, the recruitment of the best candidates for nursing, the accountability of nursing for the health care of people and the continuing contributions of nurses to education, practice and research for the general welfare of society.

The attitudes and actions of the members of the nursing profession towards the standards for their education and their practice is a moral and ethical issue.

REFERENCES

1. American Nurses' Association, *Position Paper* (New York: American Nurses' Association, 1965), pp. 5-9.
2. Committee for the Study of Nursing Education, *Nursing and Nursing Education in the United States* (New York: Macmillan Co., 1923), p. 32.
3. Committee on the Grading of Nursing Schools, *Nurses, Patients and Pocketbooks* (New York: Committee on the Grading of Nursing Schools, 1928), p. 447.
4. Ginzberg, E., *A Program for the Nursing Profession* (New York: Macmillan Co., 1948).
5. Brown, E. L., *Nursing for the Future* (New York: Russell Sage Foundation, 1948).
6. National Advisory Commission on Health Manpower, Vol. 1 (Washington, D.C.: U. S. Government Printing Office, Nov., 1967), pp. 7 and 31.
7. Lysaught, J., *An Abstract for Action* (New York: McGraw-Hill, 1970).
8. Christman, L., "Educational Standards versus Professional Performance," *Current Perspectives in Nursing Education: The Changing Scene* (C.V. Mosby, 1976), pp. 37-49.
9. National League for Nursing, *State Approved Schools of Nursing* (New York: National League for Nursing, 1977).
10. Altman, S., *Present and Future Supply of Registered Nurses*, Publication No. 72-134 (Washington, D.C.: U. S. Dept. of Health, Education and Welfare, 1971), pp. 86-87.
11. Institute of Medicine, *Costs of Education in the Health Professions*, Parts I & II (Washington, D.C.: National Academy of Science, 1974).
12. Social Security Administration, *Medicare Reimbursement Manual*, H.I.M. 15 (Washington, D.C.: U.S. Dept. of Health, Education and Welfare), Sec. 404, 2.
13. Institute of Medicine, *op. cit.*
14. *Ibid.*
15. National League for Nursing, *Nurse-Faculty Census* (New York: National League for Nursing, 1976).
16. *Ibid.*
17. Flexner, A., *Medical Education in the United States and Canada* (Boston: The Merrymount Press, 1910), pp. xi, 17, 49.
18. American Hospital Association, *Career Goals of Hospital School of Nursing Seniors* (Chicago: American Hospital Association, 1975), p. 15.
19. National League for Nursing, *Statistics on Baccalaureate and Higher Degree Programs in Nursing, 1975-76* (New York: National League for Nursing, 1976).
20. *Ibid.*
21. Lewis, E., "The Baccalaureate Degree," Editorial, *Nursing Outlook*, June, 1977, p. 369.
22. Department of Health, Education and Welfare, *Evaluation of Employment Opportunities for Newly Licensed Nurses* (Washington, D.C.: U.S. Dept. of Health, Education and Welfare, 1975).
23. Armiger, Sr., B., *Unemployment: Is There a Nurse Shortage?* (New York: National League for Nursing, 1973).
24. Kibrick, A., "Why Collegiate Programs for Nurses?" *New England Journal of Medicine*, April 4, 1968, pp. 1-8.
25. Christman, *op. cit.*
26. Lewis, *op. cit.*