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A qualitative study of selected educational issues in nine hospital-related colleges in the United States

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**A qualitative study of selected educational issues in nine
hospital-related colleges in the United States**

by

Deanne Marie Remer

A dissertation submitted to the graduate faculty
in partial fulfillment of the requirements for the degree of
DOCTOR OF PHILOSOPHY

Major: Education (Higher Education)

Major Professor: Daniel C. Robinson

Iowa State University

Ames, Iowa

1998

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ABSTRACT

The purpose of this qualitative study was to investigate the role of hospital-related allied health colleges in higher education; how changes in the nation's health care system have impacted these colleges; and the leadership characteristics of allied health college presidents. Based on the propositions that health care education and the preparation of a health care workforce are integral parts of our society's health care system, theories of environmental change and organizational development are presented as a theoretical foundation for this study.

Four research questions were identified as the focus of exploration for this research study:

1. What impact have the changes in the health care delivery system had on hospital-related allied health colleges?
2. What issues have hospital-related colleges experienced in response to these changes?
3. What is the role of hospital-related allied health colleges in health care and higher education?
4. What leadership characteristics are critical to the success of these institutions in response to a changing health care environment?

Nine allied health college presidents, who comprise the membership of the National Consortium of Health Science Colleges, were selected to participate in the study. Utilizing an interview approach, each of the presidents participated in a minimum of two 60-minute personal and telephone interviews consisting of open-ended questions. Interviews were

tape recorded, transcribed, and analyzed. Data analysis of the interview content was based on emerging themes, common patterns, perceptions, and experiences of the study participants. Consensual validation and member checks were incorporated into the research process. A field journal was maintained by the researcher as an audit trail throughout the study.

The significance of this research study focuses on gaining useful and theoretically based information to assist educators, hospital administrators, and health care providers in preparing health care professionals; understanding the role of hospital-related colleges in health care and higher education and identifying leadership characteristics of college presidents; all within a changing health care delivery system. The researcher believes this study will contribute descriptive and qualitative information to the higher education and allied health literature.

CHAPTER 1

INTRODUCTION TO THE STUDY

Overview

Over the past decade, the number of degrees conferred in the allied health professions has risen over 10%, mirroring an increase in employment opportunities in the health care field. Graduates in health care have benefited from an increased demand for their services and they have been able to pursue high-paying and challenging health-related careers immediately following graduation (U.S. Department of Labor, Bureau of Labor Statistics, 1994). This trend has been brought about, in part, by an aging population, technological advances in medicine, and a reorganization of the health care system in the United States. Assuming that the demand for health care services and employment opportunities will continue to rise, educators may see record levels in the number of conferred health science degrees in the decades to come (Horton & Knopp, 1994).

Studies have also identified an increase in college students' interest in the health professions (Horton & Knopp, 1994). The American Freshman survey, published by the Higher Education Research Institute at the University of California, Los Angeles, reports that the number of freshmen college students aspiring to major in health related fields reached an all time high in 1992 and 1993 (Astin, 1993). Horton and Knopp (1994) reported that freshmen interest in nursing majors reached record levels in 1992, while similar growth trends were noted for

pharmacy, physical and occupational therapy, and pre-professional health majors in 1993.

According to recent statistics as many as one out of every six graduating students from institutions of higher learning are allied health graduates accounting for approximately 100,000 new allied health professionals each year (Blayney & Selker, 1992; McTernan & Leiken, 1984). Overall, the number of degrees awarded in the health professions increased by 10% between 1984-85 and 1991-92, with 16% of all associate degrees conferred in the health sciences (Horton & Knopp, 1994). These reported figures do not include the many hospital-related education programs in allied health, which for some professions account for as many as half of the accredited programs (Horton & Knopp, 1994).

Equally significant are the numbers of health care providers identified as professionals in the allied health workforce. Although valid data on exact numbers are not available, it is estimated that in 1994, 60% of the 10.5 million Americans employed in allied health fields were allied health professionals. According to the most recent statistics, employment growth in the allied health professions is projected to show a 12% increase between 1992 and 2005, while the number of health care positions will increase by 42%, from 7.4 to 10.5 million over the same time period (U.S. Department of Labor, 1994).

These projections are based on the assumptions that the demand for health care services will continue to rise as the United States population ages and new medical technologies will permit interventions for conditions that were previously undiagnosable or untreatable. If these projections prove to be accurate, increases in employment opportunities are likely to drive the number of allied health

educational programs and conferred health science degrees to possible record levels (Horton & Knopp, 1994).

The evolving health care system

Significant changes are taking place in the nation's health care system due to a managed health care system, an aging population, and technological advances that make the delivery of health care even more complex. In an era of health care cost containment, the U.S. government, employers, and the public are attempting to control costs and expand access to quality health care. As a result, managed health care programs have become an integral part of promoting outpatient health care through ambulatory centers, public health clinics, and home health settings. This continuing shift to outpatient care will result in a higher level of patient acuity in hospitals. The education of a nursing and allied health workforce will require hospital-related schools to respond to these changes in the health care delivery system.

A dramatic increase in the nation's elderly population is also creating an increased demand for allied health practitioners in a variety of health care fields. According to the U.S. Census Bureau, the number of Americans aged 65 and older grew by 82% between 1965 and 1995. The Office of Disease Prevention and Health Promotion (1987) reported that in 1984, approximately 28 million Americans (11% of the population) were 65 years of age or older. Today, this group is the fastest growing segment of the population and is anticipated to grow to 35 million (13% of the population) by the year 2000. By the year 2030, there will be approximately 70 million persons 65 and older. In terms of employment opportunities in geriatric care, an additional 800,000 jobs will be

generated by out-patient care facilities and nursing homes by the year 2000.

Finally, technological advances will play an integral part in the complex care and treatment of acutely ill patients who require hospital based care. The presence of increasingly ill patients in hospital settings will require greater numbers of nurses. Federal estimates forecast that the need for registered nurses in hospitals will increase by 36% by the year 2030 (National Advisory Council on Nurse Education and Practice, 1996). Technological advances will also greatly expand the knowledge base required by health care providers. Accompanying these advances will not only be the need for health care workers with advanced training but also a greater number and diversity of health care providers.

Due to these changes and increasing health care costs, the United States government, employers, and the public are attempting to control costs and expand access to health care. The Pew Health Professions Commission was established in 1989 to assist health care professionals to understand and respond to the challenges of health care change. Representing health care public policy today, the Pew Commission (1995) has declared that, "the American health care system is now experiencing the most dramatic transformation in its history . . . a transformation that will impact the central role of all health professions in delivering care that improves quality, lowers costs and enhances patient satisfaction" (preface, p. x).

Allied health education

These changes in the nation's health care system have significant implications for the education of nursing and allied health professions. The Pew Commission (1995), believes that the education and training of health professionals is out of step with the evolving health care needs of the American people, and has called upon changes and improvements in the education and training of allied health practitioners to include the nations' nurses, physicians, dentists, pharmacists, and public health practitioners (de Tornay, 1993).

In addition, the 1995 Pew Commission reiterated the importance of health professions education, stating that the essential element for reforming the nation's health care system is "the education and reeducation of health care professionals" (Pew Health Professions Commission, 1995, p. 20). Allied health professionals are being called upon to play new roles in the health care system in order to provide greater cost effectiveness, quality of care, and productivity and thereby improve society's access to health care (Dowd, 1994).

The Pew Commission (1995) has also predicted that enormous demands will be placed on health practitioners and the educational programs that produce and support them. Leaders in allied health education will be called upon to help respond to needed changes in educating health care professionals and to ensure that health care practitioners are responsive to future societal needs. As the education of health care practitioners emerges as an important phenomenon in higher education, hospital-related allied health colleges can be predicted to have an even greater role in meeting the nation's demand for qualified health care professionals.

Statement of the Problem

While much attention has been focused on society's health care needs and the changing health care system, little attention has been directed to the role of hospital-related colleges in meeting these health care challenges in preparing the health care workforce for the future. Hospital-related schools have been in existence for over 100 years and they have made significant contributions to the health care workforce. However, their presence as degree-granting Colleges of Health Sciences has not been recognized.

An examination of the literature revealed essentially no documentation on hospital-related colleges of nursing and allied health professions, or their role as an integral part of a changing health care system. Further, an investigation of major issues facing allied health colleges, as institutions of higher education, has not been explored in the research. In response to these findings, a need for recognition, study, and research of hospital-based allied health colleges is indicated.

Purpose of the Study

The primary purpose of this study was to investigate and identify the role of hospital-related Colleges of Allied Health Sciences in educating health care professionals in response to a changing health care environment. Specifically, the study explored how changes in health care have impacted hospital-based education; major issues impacting hospital-related Colleges of Allied Health; the role of these allied

health colleges in health care and higher education and the leadership characteristics of allied health college presidents.

Results of this study's findings will begin to identify (a) the impact that changes in the health care system have had on hospital-related education, (b) the issues that these colleges are experiencing as they have transition from hospital-based training programs to specialized colleges, (c) the role of specialized or hospital-related Allied Health Colleges in health care and higher education, and (d) the leadership role and qualities that Allied Health College Presidents perceive as necessary for colleges undergoing transition in response to environmental change. Based on research in the areas of health care and allied health education, hospital-related allied health colleges can begin to identify the ways to meet the educational demands of a changing health care delivery system.

Research Questions

As a result of a comprehensive review of the literature and the qualitative research process, four questions were identified as the focus of exploration for this research study. Attention was directed toward the description and analysis of responses provided by the study participants to the following questions:

1. What impact have the changes in the health care delivery system had on your hospital-related allied health college?
2. What major issues have hospital-related college of health sciences experienced in response to these changes in the health care delivery system?

3. In preparing qualified health care professionals for the future, what is the role of allied health colleges in health care and higher education?
4. As a college president, what leadership characteristics do you consider critical to the success of your institution in responding to a changing health care environment?

Significance of the Study

This study began with the proposition that health care education and the preparation of health professionals are integral parts of our society's health care system. A second proposition proposes that further research in this area will assist educators, hospital administrators, and health care providers to more adequately understand their role in preparing health care professionals as well as understanding the emerging role of hospital-related colleges of allied health in higher education. A third proposition for this study rests on the foundation of organizational development theory and the response of organizations to environmental change. This theoretical framework accounts for the relationship between a changing health care system and the response of specialized or hospital-related educational programs to these environmental influences.

The significance of this research study focuses on gaining useful and theoretically grounded information to assist educators, health care administrators, and providers in the following areas: (a) identifying the impact of health care changes on hospital-related, specialized allied health colleges; (b) recognizing major issues in allied health education in order that educators may anticipate and prepare for change,

growth, and future direction of their allied health programs and colleges; (c) assisting health care professionals and educators in understanding the role that hospital-related education programs provide for health care and higher education; and (d) identifying leadership characteristics of college presidents in a changing health care and educational environment. Utilizing the theoretical foundation of organizational development in response to environmental change, the study provides a basis for new information and knowledge to be incorporated into the allied health and higher education literature.

The literature in the area of health care reform calls upon a variety of changes to be incorporated into health care education. This nation's emerging health care system is considered to be a major driving force in determining what kinds and numbers of health care professionals will be needed, what training and skills will be needed in various areas of practice, and what professionals will be in greatest demand. From this study it will be possible to learn more about how the changes in the health care environment are influencing allied health education and how educators can plan for the future.

Educators face difficult decisions regarding the investment of valuable resources in meeting future student needs. Awareness of health care changes will allow educators to determine policy actions and better prepare their students for a changing work environment. According to Collier (1989), the task for the allied health educator is to be aware of issues and evolving trends in health care and allied health education so that the many and complex forces are known and understood. In this way, current programs and future initiatives can be made consonant with

the needs of society. The challenge, then, is both to manage and to lead in a rapidly changing environment.

Blayney and Selker (1992) noted that unless changes are made in the way allied health practitioners are educated, the possibility exists that allied health professions will be unable to respond to societal needs. By understanding the impact of health care changes on allied health education, college educators and administrators can better prepare for these changes by providing the type of programs and curriculum that will best prepare their graduates for the marketplace. Educators will better understand how changes in the health care environment will influence their educational environments in terms of employer demand for graduates from their programs and the educational resources they will need to carry out their responsibilities.

Summary

Although no one study can completely explain the impact of health care changes on higher education, this study will begin to provide a basis for new information and knowledge regarding the role of hospital-related or specialized allied health colleges in health care and higher education. As allied health education continues to undergo major changes in response to health care, a number of major issues associated with this transformation will be identified.

This study will explore the role of hospital-related colleges in preparing health care professionals and in meeting the health care needs of society. Considering that the number of degrees conferred in the health professions have increased over the past decade and are predicted to continue to increase, further attention is needed to assess the

relationship between society's health care needs and the educational preparation of health care professionals for the future. While much attention has been focused on the changing health care environment, research has not been conducted on the emerging role of hospital-related Colleges of Health Sciences.

By analyzing the findings of this study, one can begin to understand the role of these colleges in fulfilling the nation's increasing demand for qualified health care professionals. The information gained from this study is intended to assist allied health educators and administrators in making informed decisions regarding their future response to external influences in the health care environment. This study attempts to explain, supplement, and complement the higher education literature by exploring the impact of changes in our health care system on hospital-related allied health education.

Organization of the Study

This qualitative study was designed to provide an in-depth analysis of issues of allied health colleges in a changing health care environment as well as identify the role of specialized or hospital-related colleges in health care and higher education. To guide the gathering of data and analysis, the study was organized into five chapters.

Chapter 1 introduces the subject and scope of the study, including a statement of the problem, purpose, research questions, and significance. The remaining four chapters describe the development of the study and its findings in more depth and detail.

Chapter 2 reviews the literature to acquaint the reader with the nursing and allied health fields in the United States. Attention is given to the history, evolution, and current status of nursing and allied health education. Based on the proposition that health care education and the preparation of health professionals is an integral part of our society's health care system, theories of environmental change and organizational development of higher education life cycles are presented as a theoretical foundation for the study.

Chapter 3 describes the evolution and implementation of the qualitative research methodology employed in the study. Specifically, Chapter 3 addresses the initial identification of the research study and objectives, research participant selection, data collection and methods of data analysis that were used as well as the means for reporting the data. A qualitative research approach provided the opportunity to develop the study in a manner that would allow the researcher to analyze relevant issues as they emerged throughout the research.

Chapter 4 presents the findings and an analysis of the data that were gathered from tape recorded interviews with nine allied health college presidents. Based on research questions that evolved from the qualitative research process, the data were then transcribed, analyzed, and categorized according to major themes. Chapter 4 explores a spectrum of allied health education issues.

Chapter 5 provides a summary of the research findings and includes a discussion of the significance, possible meaning, and implications of the study. From the number of findings associated with this study, recommendations are identified for further research involving allied health education and hospital-related health science colleges.

Limitations of the study are discussed and conclusions are provided for the study.

CHAPTER 2

REVIEW OF RELATED LITERATURE

Introduction

This chapter presents and integrates a review of the literature by examining nursing and allied health education from a variety of sources which focuses on the history, evolution, and current state of allied health education as well as theories of organizational development in higher education. Chapter 2 is organized according to the following headings: (a) defining allied health and related terms, (b) the history and evolution of nursing and allied health education, (c) the current status of nursing and allied health education programs, (d) theories of organizational development as they apply to institutions of higher education, and (e) the future role of allied health education as an expanding field for health care professions. A brief summary closes the chapter.

Extensive and diverse literatures were consulted during the development and course of this qualitative study. A literature search, initiated through the ERIC Clearinghouse for allied health education, yielded information about departments of nursing and allied health in college and university settings. The ERIC search also provided a number of general references related to issues in allied health education. A computerized search of university library data bases provided minimal citations on the topic. Journal articles, obtained from the Journal of Allied Health, a publication of the *Association of Schools of Allied*

Health Professions were current and helpful for college and university based allied health programs. Another useful source was a review of the nursing education literature which significantly contributed to background information on the evolution of nursing education programs in higher education. A search of graduate studies through Dissertation Abstracts International generated two recent studies on allied health education in university settings.

Following an extensive review of the literature, little or no evidence of research was found in the areas of hospital-related allied health colleges, nor did the literature address the changing health care environment and the resulting impact on allied health education in hospital-related settings, the role of hospital-related or specialized colleges in allied health or higher education, or the leadership of these specialized institutions. Although hospital-based nursing and allied health education have been in existence for over 100 years, little is known about the status or the transition of these programs to established colleges of nursing and allied health, their role in allied health and higher education, or the leadership of these hospital-related colleges. A review of the literature substantiated the need to investigate and identify these major issues.

Allied Health Defined

Compared to other sectors of higher education, allied health education is a relatively new addition and continues to be ill-defined with respect to its professional and academic status. Ambiguity surrounds the exact nature of allied health education as identified by the various academic units in which allied health programs are located

in colleges and universities across the United States (Alexander, 1990). According to the National Commission on Allied Health Education (1980), allied health, as a concept, is generally not understood nor appreciated. Although the term, allied health, was initially introduced in the 1960s as a convenient way of categorizing education and training programs separate from the field of medicine, there continues to be a significant amount of confusion that surrounds the term today.

The first major factor for this confusion, is that "allied health education" is used to describe a wide range of health education programs in different settings and different educational institutions (National Commission, 1995). At the postsecondary level, allied health programs are offered to diverse groups of students with different didactic and clinical experiences in a wide variety of settings: hospitals, colleges, universities, and medical schools; technical, trade, and business institutes; the armed services; and federal government agencies (National Commission, 1995).

Another reason for this widespread confusion is the complexity of allied health education which encompasses different disciplines and different educational levels. Allied health professionals differ in the amount and level of education they require ranging from highly educated persons to others with only on-the-job training (Institute of Medicine, 1988). The education of health care disciplines correspond to diverse health care needs as well as to broad differences in knowledge, skill requirements, and responsibilities (National Commission, 1980).

Finally, the rapid growth of allied health education in the 1960s, which often occurred without sufficient planning, has contributed to the confusion that exists in the allied health field today. Over a number of

years, the name allied health has acquired a semblance of meaning and familiarity for policy-makers at the state and federal levels of government. This has resulted in a national perspective, and now the term is applied to educational programs and occupations whose primary function is to promote health and provide health services (National Commission, 1995).

Definition of allied health terms

The following definitions are provided in order to establish a basic level of understanding of terms common to allied health professional education, and specifically, colleges of nursing and allied health that are represented in this study.

Allied Health Professional - According to Section 701 of the Public Health Service Act (1992), an allied health professional is defined as one who: (a) has received a certificate, an associate's, bachelor's, master's, or doctoral degree, or postbaccalaureate training in a science related to health care; (b) has responsibility for delivery of health or related services, including services relating to the identification, evaluation, and prevention of diseases and disorders; dietary and nutrition services; rehabilitation services; and health system management service; (c) has not received a degree of doctor of medicine, osteopathy, dentistry, veterinary medicine, optometry, podiatry, chiropractic, or pharmacy; a graduate degree in health administration; a degree in clinical psychology or social work; or a degree equivalent to one of these (Del Polito, 1985, p. 8).

Allied Health Education - Any formal preparation of personnel for work in allied health fields including the total range of certificate

through graduate degree or basic preparation and continuing education (Katz, 1983, p. 134).

Specialized Health Profession Schools/Institutions - The classification of institutions of higher education in the United States, as developed by the Carnegie Commission on Higher Education defines professional schools and other specialized institutions as those that offer academic degrees beginning at the bachelor's level with at least 50% of the degrees awarded in one specialized field. These institutions are often called single-purpose or specialized colleges. With respect to allied health or health science colleges, the majority of degrees are awarded in the health sciences in such fields as nursing, medical technology, radiology, and emergency medicine (Carnegie Foundation for the Advancement of Teaching, 1994).

Hospital-Related Allied Health Colleges - Postsecondary institutions specializing in nursing and allied health professional training programs. One of the distinctive characteristics of these institutions is that they successfully operated as diploma nursing schools for many years prior to transitioning to accredited colleges (Lamb, 1998). Many of these institutions maintain an organizational affiliation with a medical center and/or health care system.

Current status of allied health professions

Today, health care is one of the fastest growing service industries in the United States. Farber, McTernan, and Hawkins (1989) suggest that professions of "allied health" constitute a sleeping giant in the American health care system. A 1988 report by the Institute of Medicine characterized allied health personnel as an under-recognized

and diverse, but crucial, human resource in the health care delivery system. This characterization is due, in part, to the wide range of work these professionals perform, their varying degrees of autonomy as well as the different types of regulatory agencies that control their activities (Institute of Medicine, 1988).

Since the turn of the century, the total health care workforce has been growing and changing as reflected in reports by the U.S. Bureau of Health Manpower (1978), the 1980 National Commission on Allied Health Education, and the 1992 U.S. Department of Health and Human Services report. According to these sources, the overall growth in the numbers of allied health workers is staggering from 345,000 in 1900 to 2 million in 1960; 4.3 million in 1970 and an estimated 5.1 million health care workers in 1976 (National Commission). Today, it is estimated that 60% of the reported 10.5 million workers in health care are allied health professionals (National Commission, 1995; U.S. Department of Health and Human Services, 1992; U.S. Department of Labor, 1994).

Projected growth of allied health professions

Allied health is constantly changing and growing as a necessary response to what is probably considered to be the most dynamic industry in the United States, health care (National Commission, 1995). The U.S. Department of Labor (1994) projects that the demand for health care services will continue to rise as the population ages and new medical technology emerges. Although hospitals will grow more slowly than other health industries, they will account for about one-third of the job growth in the health industry.

A 1996 report to the United States Congress, *The Study of the Role of Allied Health Personnel in Health Care Delivery*, also projects dramatic increases in the number of jobs for allied health workers by the year 2000. Based on reports from the United States Bureau of Labor Statistics (BLS), increases in a number of health related careers were projected from 1996 to 2006. For example, clinical and medical laboratory jobs for technologists and technicians will grow from 285,000 to 327,000, an increase of 15%, representing 42,000 new jobs. The Bureau estimates that the number of dental hygienist positions will increase 48% from 133,000 positions in 1996 to 197,000 in the year 2006.

Physical therapy positions are expected to increase 71%, representing 81,000 new jobs. An additional 38,000 occupational therapy jobs will exist in the year 2006, representing an increase of 66% over 1996. Similar growth is expected for respiratory therapy and speech pathology. By the year 2006, the number of paid emergency medical technicians (EMTs) are expected to increase by 45% to 217,000 reflecting an elderly population growth which makes the greatest use of emergency medical services. New EMT positions, available in privately owned ambulance services, will account for nearly a quarter of all newly created jobs while hospital employment of emergency medical technicians will increase by 11% (U.S. Department of Labor, Bureau of Labor Statistics, 1998).

A 1992 study by the Department of Health and Human Services also identified allied health as one of the fastest growing occupational groups, with a 44% growth rate from 1980-90, and a 144% growth rate from 1970-90 (U.S. Department of Health and Human Services [hereinafter referred to as DHHS], 1992). Horton and Knopp (1994), authors of Vital

Signs for the Academy and the Health Professions, predict that by the year 2005 health care positions will increase nationally by 42%.

Projections by the U.S. Department of Labor (1998) report that by the year 2006 there will be:

- 411,000 new registered nurses
- 342,000 new nursing and psychiatric aide positions
- 699,000 new licensed practical nurse positions
- 166,000 new therapy positions (including occupational, physical, recreational, respiratory, as well as speech-language pathologists and audiologists).

According to the United States Department of Labor (1998), nursing continues to be the most popular field of study in the health professions followed by medicine. The largest increases in employment in the health professions are predicted to be nursing and therapy occupations. Overall, registered nurses, who comprise the largest component of the health care team, are projected to have one of the greatest increases in growth through 2006. Experts predict that registered nurses will increase by 21% with new positions in home health, long-term care and ambulatory settings.

In addition, federal estimates forecast that due to the rising complexity of acute care in hospitals, the need for registered nurses in hospital settings will increase by 36% by 2020. Predicting a registered nurse shortage beginning approximately 2010, the Division of Nursing of the U.S. Department of Health and Human Services (1998) expects that

114,000 jobs will go unfilled nationwide by 2015 (American Association of Colleges of Nursing [AACN] Bulletin, 1998).

Figure 1, a chart from the United States Department of Labor, Bureau of Labor Statistics (1994), presents the projected employment growth for health care providers from 1995 to 2005.

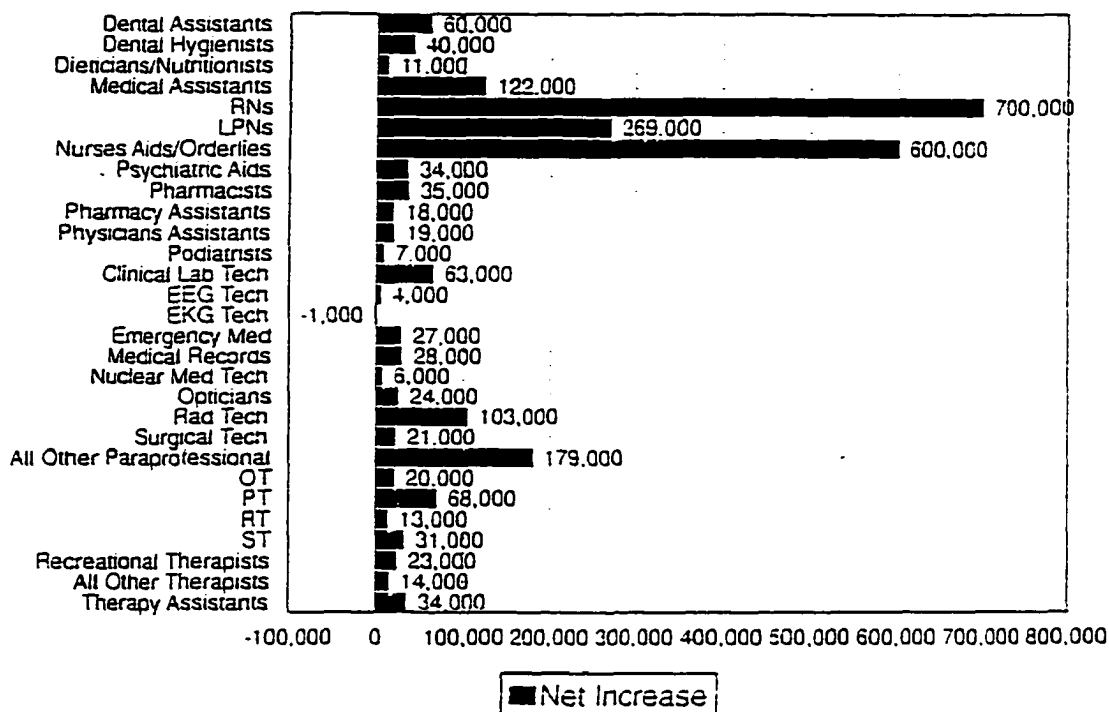


Figure 1. Employment growth for health care workers, 1995-2005.

Source: The U.S. Dept. of Labor, Bureau of Labor Statistics, 1994.

If these projections prove to be accurate, increases in employment opportunities are likely to trigger a further increase in the number of degrees conferred in the allied health professions. In the 1991-1992 academic year, academic degrees in the health professions accounted for 9% of all degrees conferred and 16% of all associate degrees. Based on

the number of awarded degrees in the health sciences and future employment projections, further attention is needed to assess the relationship between society's needs and the role of higher education in preparing allied health professionals for the future.

The Development of Allied Health Education

The development of allied education has been closely related to the rapid growth of health care occupations, which, in turn, has occurred in response to increasing national health care demands. Thus, the evolutionary process for health care occupations and the historical development of formal allied health educational programs have been similar and interrelated. The most frequently cited pattern of development for allied health education programs identifies three phases beginning with preceptorships to on-the-job training and progressing to associate and baccalaureate education.

In the first phase, a need for a service was identified in patient care settings, such as hospitals or doctors' offices. Historically, allied health services existed as a direct extension of the physician, or simply providing another pair of hands for labor (Dowd, 1994). Early training programs were first established to support medical personnel and usually involved hospital-based internships with on-the-job training and brief technical training (W. K. Kellogg Foundation, 1997). Under the direct supervision of the professional, the employee learned to perform needed tasks. Performance evaluations were carried out by the practitioner, who also functioned as the teacher, evaluator, role model, and employer (McTernan, 1989; National Commission, 1995).

When on-the-job training programs proved insufficient, allied health education programs were initiated and new health professions were created (McTernan, 1989). The second phase began with the formalization of education programs within the hospital and the establishment of professional associations representing emerging health care specialties. This movement towards professional status marked the delegation of routine tasks and thus began the hierarchical levels of different occupations in health care (National Commission, 1995). As health care experienced an explosive growth in health science technology, new types of personnel were required and the scope of allied health practice expanded. It thus became practical and desirable to delegate tasks to others, resulting in the emergence of a new cadre of health care assistants and aides (National Commission, 1995).

The third phase of allied health education resulted from increased collaboration between hospitals and educational institutions which eventually culminated in a shift of allied health programs to collegiate settings and the granting of associate and baccalaureate degrees in nursing and the health sciences. This shift of focus to the collegiate settings raised a number of educational issues, such as the value of theory versus practice, occupational preparation versus general education, and maintenance of flexibility in the face of constant innovation (National Commission, 1995).

Early allied health education

Until about 1890, most medical schools were proprietary institutions and were often owned by the professors who taught in them. Consequently, medical education left much to be desired (Boyles, Morgan,

& McCaulley, 1982). This trend began to change with the publication of the Flexnor Report in 1910 which was highly influential in establishing professional training as best accomplished within the university system (Vesey, 1965).

Hospitals took a leadership role for providing practice and observation in the skills of medicine. Generally, this academic history can be identified within most health-related professions that included a basic university preparation followed by an "internship" or clinical experience in a cooperating "teaching" hospital (Alexander, 1990). The first School of Allied Health Professions was established at the University of Pennsylvania in Philadelphia in 1950. The second and third allied health programs were the College of Health Related Professions at the University of Florida founded in 1957 and the Division of Allied Health Sciences at Indiana University founded in 1958 (McTernan & Hawkins, 1972). These colleges and many of their successors were founded in prestigious universities and were associated with medical schools and teaching hospitals.

Post-World War II developments

Following World War II, an era of rapid expansion and transformation in health related professions emerged. A number of postwar developments have been identified as contributing to the growth of allied health occupations. These developments resulted from major social reforms that followed World War II and included the American Medical Association (AMA), federal legislation, and the post war effort against disease.

According to Starr (1982), the American Medical Association (AMA) supported the growth of allied health in a number of ways. First, the AMA was influential in controlling the supply of physicians which resulted in the need and eventual growth of auxiliary personnel. Second, the AMA was instrumental in ensuring the quality of auxiliary personnel. As early as 1935, the AMA collaborated with the American Society of Clinical Pathologists in an attempt to set standards for educating allied health personnel. This type of involvement on the part of the AMA and the demand for well-trained health personnel grew until 1966, when the AMA created the Advisory Committee for Allied Medical Professions and Services. The role of this committee was to assist the AMA in accrediting educational programs for the allied health professions (Department of Allied Health Education and Accreditation, 1983).

The second post-war development was the federal government which provided two major contributions to the development of allied health professions. The first contribution was the government's financial support for private laboratory research (Starr, 1982). The second contribution was identified as the *Hospital Survey and Construction Act of 1946*, also known as the *Hill-Burton Act*. This Act provided funds to construct and equip hospitals throughout the United States (U.S. Department of Health, Education, and Welfare, 1985) and resulted in a substantial growth in the number of hospitals. This development, combined with an increasing public demand for medical care and a corresponding decrease in the number of physicians, contributed to the expansion of auxiliary personnel. It was also noted that by assigning some of their duties to others, physicians could increase the number of patients and thus their personal income (Starr, 1982). With such

financial incentive, physicians tended to be quite supportive of the development of an allied health workforce.

The third post-World War II era development which contributed to the growth of allied health involved a major war effort against disease. This effort translated into more research, hospitals, and new programs to provide care for the sick, elderly, and poor. The federal government dedicated resources to educate and train huge numbers of health care workers. National and state political leadership, with the full support of the academic community, launched a tremendous expansion in the human resource pools dedicated to providing health care (Bulger, 1994).

Allied health professions in the 1960s

In the mid 1960s, an imbalance between supply and demand for health manpower became a national concern. Attention was directed to the many health occupations, which, as a group, were referred to as "allied health professions." *The Allied Health Professions Personnel Training Act*, passed by Congress in 1966, was directed at: (a) increasing training opportunities for medical technologists and other personnel in the allied health professions, and (b) improving the educational quality of schools training allied health professions personnel. This program provided grants to public and private nonprofit training centers which included accredited two and four-year colleges and universities that were affiliated with teaching hospitals that offered associate degrees or higher (National Commission, 1995).

In 1966, the first comprehensive national study of allied health education, entitled, *Education for the Allied Health Professions and Services*, described the status of allied health education and set a goal

to double the number of educational programs (National Commission, 1995). A subcommittee of this commission clearly favored the collegiate sector as the appropriate setting for high-quality education, declaring that:

Education and training are primarily the business of educators in educational institutions. Education for the health professions must include a substantial portion of clinical experience; yet the character and nature of that experience should be under the control of the educational institution primarily responsible for the program, to insure that the clinical exposure provides the requisite educational value. (U.S. Dept. of Health & Human Services, 1967, p. 22)

This basic assumption led to a series of recommendations for developing allied health education in the collegiate sector in order to promote interdisciplinary communication and cooperation (National Commission, 1995). According to Chapman (1970), the trend for allied health programs to move into academia was enhanced with the relocation of allied health programs to comprehensive health centers.

According to Roemer (1982) the passage of the Medicare and Medicaid Acts of 1965 was another major influence in the development of health care education. As a direct response to the public's demand for access to care, Medicare and Medicaid provided a system of third party reimbursement to hospitals and physicians for medical care. By encouraging medical services for the poor and elderly, the government significantly added to the growing demand for health care for all individuals and thus an increased demand for health care providers.

In 1967, the American Society of Allied Health Professions was established to represent the diverse needs of allied health groups and to provide a forum for institutions responding to the Allied Health Professions Training Act of 1966. Later the organization was renamed the

Association of Schools of Allied Health Professions (ASAHP) and expanded its interests to cover a wider range of concerns. However, today, education continues to remain the primary focus of the Association (National Commission, 1995).

Mahoney (1980) identified that all of these changes contributed to the rapid growth of allied health programs which resulted in labeling the 60s as an expansionist era for health care in which the health care workforce doubled between 1960 and 1970. Kingsinger (1981) noted that many of the allied health programs that emerged during this time, are now facing the 80s with many questions about their identity and ability to survive changes in the health care delivery system. Wesbury (1983) also observed that the rapid growth of allied health programs in the 1960s has left a diverse group of occupations with little direction or development and who are now searching for an identity.

Allied Health Education Programs

With respect to the varying levels of allied health education, a trend has developed toward housing different preparatory programs in different types of educational institutions. Professional preparation (four or more years) takes place in colleges and universities. Technical preparation (up to two years) takes place in community/junior colleges or technical institutes. Vocational preparation (up to one year) takes place in vocational-technical centers, adult education centers, and community/junior colleges (Junge, 1986, p. 76).

Allied health education settings include a diverse group of institutions that include academic health centers, medical/dental schools, one and four-year colleges and universities, community

colleges, vocational or technical schools, hospitals and nonhospital health care facilities, as well as the Department of Defense and the Veterans Administration. According to the 1996-97 Allied Health Education Directory of the American Medical Association, which provides data on 28 allied health occupations, 34.8% of allied health programs were offered in junior or community colleges, 26.7% were hospital-based programs, 14.1% were provided by four-year colleges and universities, 11.4% were housed in vocational or technical schools, 10.2% were located in academic health centers/medical schools, and 1.4% were offered in nonhospital health care facilities in the Department of Defense and Veterans Administration (American Medical Association [AMA], 1997).

The rapid change and expansion of allied health education since the 1960s has been characterized by three major factors. First, there has been a tremendous proliferation of programs, particularly in collegiate settings, paralleling the huge expansion of two-year colleges and the growing popularity of vocational programs. This expansion is illustrated for example, in 1966, when an estimated 2,500 collegiate programs existed as compared to 1980 statistics, with over 8,000 collegiate programs in existence. Second, the distribution of programs have changed from hospital and other health service settings to higher education settings, such as universities, two-year colleges, vocational technical institutes, and private career schools. The third factor is reflected in the expansion of knowledge and skill requirements which has led to a greater diversification of educational levels and now range

from short-term certificate to full-fledged doctoral programs (National Commission, 1995). Figure 2 illustrates the diverse settings for allied health education and the percentage of programs found in these institutions.

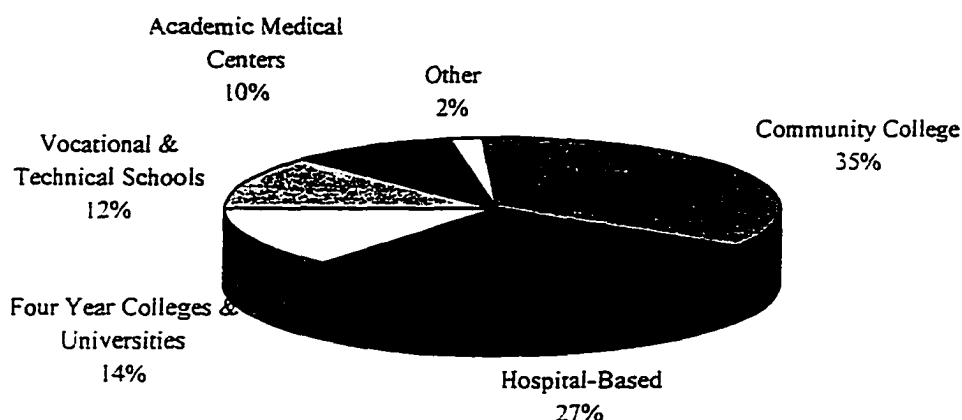


Figure 2. Allied health education settings

Source: 1994-1995 Allied Health Education Directory of the American Medical Association.

Existing data sources for allied health educational programs are found in the Glossary of Health Occupations Titles, an annual publication of the American Society of Allied Health Professions (ASAHP); the 1992 Survey of Human Resources published by the American Hospital Association (AHA); and the 1996-97 Allied Health and Rehabilitation Professions Education Directory published by the American Medical Association. These directories provide information and numbers of allied health programs found in universities, colleges, and hospital-related settings.

According to 1994 estimates from the Bureau of Health Professions, hospitals account for 38% of the institutions sponsoring allied health programs; 28% of all programs; 16% of all graduates; and 14% of the total allied health student enrollment. Collegiate institutions account for 40% of the institutions sponsoring allied health programs, 59% of all allied health programs, 66% of all graduates and 69% of the total enrollment in allied health programs (Allied Health Education Directory, 1994, p. 113).

Collegiate programs

The expansion of allied health programs to collegiate settings is a relatively recent phenomenon that has been associated with an expanded knowledge base and degree requirements (National Commission, 1995). In recent decades, the American culture has identified the possession of academic degrees and educational credentials as a door of opportunity in which "the best jobs go to college graduates and that college degrees confer honor, prestige and presumably greater wealth." This thinking has led to an increase in the educational requirements which include academic degrees.

Since the 1960s, hospital-sponsored education programs experienced significant changes and closures while major growth occurred in collegiate programs. Three hundred and fifteen hospital-sponsored programs closed between 1982 and 1986. During this same period, community colleges experienced a growth of 100 programs (9.6%) and junior colleges increased by 26 programs (4%). The latest data from the United States Department of Labor and the National League for Nursing identify an increase in collegiate nursing programs and a decrease in

hospital-based programs. Data from the U.S. Department of Health and Human Services report the same trend for other allied health professions (Junge, p. 78).

Hospital-related programs

Until the late 1960s, most educational programs for auxiliary medical personnel were based in hospitals (W. K. Kellogg, Action Programs, 1977). These educational programs began when health care workers were needed in various support roles and the hospitals provided their own on-the-job training. Hospital-related educational programs followed a similar pattern of development to other allied health education programs from employer training to the establishment of professional associations, and finally, a collaborative relationship between the hospital training program and an educational institution (National Commission, 1995).

In 1976, over one-third of all allied health programs were found in hospitals. In 1994, the American Hospital Association (AHA) noted that although changes had occurred in the number of hospital-related programs, education continued to be the second major function of hospitals next to providing health care. Furthermore, the importance of the hospital's role in education continues to be a growing opinion rather than a diminishing one. Even though the trend of shifting training sites from hospitals to collegiate settings is well noted, this has not decreased the hospital's perceived role of educating allied health professionals (AHA, 1994).

Hospitals have not gotten out of the business of allied health education and are not likely to do so in the near future (National

Commission, 1995). The role of hospitals in allied health education remains significant in two respects. First, hospitals continue to sponsor about half of all accredited allied health programs. Secondly, hospitals remain a principal resource for clinical experiences in the health care delivery system and thus provide an important site of practice for students in the allied health professions (National Commission, 1995).

Despite the shift of educational programs to collegiate settings, the number of hospital-based programs in some occupations have grown. In fact, the absolute number of both hospital and collegiate programs has increased during the last decade, but the rate of increase has been much greater for collegiate programs than for hospital programs (American Hospital Association, 1994). As a general pattern, a health sciences occupation is likely to have hospital-based educational programs if it, (a) requires less than a bachelor's degree, (b) its practitioners are employed mainly in hospital settings, and/or (c) a significant part of its curriculum requires expensive equipment and/or advanced technology.

A 1974, a policy by the American Hospital Association (AHA) stated that hospitals have a legal and moral obligation to ensure health care providers that are competent to provide care. With respect to this role, the AHA maintains that hospitals must assume primary responsibility for preparatory education when existing educational institutions (a) do not exist in an area, (b) are unable to provide preparatory educational programs, or (c) can not produce a sufficient number of graduates to meet health care needs. In addition, the AHA maintains that hospitals have the responsibility to sponsor educational programs if they can offer better and more cost effective than other available programs in

the community. Such policy statements for the AHA clearly indicate that hospital-based programs will continue to play an important role in providing human resources, particularly for certain occupations, and that hospital-related program offerings will fluctuate in accordance with employer needs (National Commission, 1995).

In addition, a major criticism exists with respect to the transition of educational programs from the hospital to collegiate settings. Kingsinger (1981) noted that many who played key roles in the early development of collegiate based allied health programs tend to confirm that many of the collegiate programs were "developed at educational institutions (with) no previous experience in the health field, without access to adequate consultation, and lacking the potential for providing the required clinical learning experiences and other essential resources" (p. 12).

A number of partnership arrangements have evolved between hospitals and collegiate institutions. A number of hospital-related programs that are taught at the baccalaureate or post-graduate level may require some postsecondary education as a prerequisite for entry. For example, some prior college courses are required for hospital-based programs in the fields of medical technology, medical records, hospital administration, nutrition, clinical pastoral counseling, and in a variety of therapies and clinical nurse specialists.

Other hospital-related programs have contracted with local colleges enabling their students to take additional college courses for credit. These arrangements are most often made with two-year colleges and have obvious value in facilitating career mobility. Collaborative arrangements between hospitals and collegiate institutions are now quite

frequent and are predicted to grow in response to increasing pressures toward cost-effectiveness and quality control (National Commission, 1995).

Nursing education programs

According to the National Advisory Council on Nurse Education and Practice (1996), as of March 1992, an estimated 2,239,816 registered nurses were licensed to practice nursing in the United States. A number of changes in hospital-related nursing programs have taken place since the 1960s, when the majority of nurses were trained in hospital-supported programs. Johnston (1991) identified that over

thirty years ago, the National League for Nursing (NLN) described the various educational opportunities available for prospective nursing students and reiterated its support for a tripartite system of diploma, associate degree (AD) and baccalaureate (BSN) programs, all leading to licensure as a registered nurse (RN) and with a provision for career mobility from the first two to the third. (p. 15)

The seminal 1965 ANA Position Statement, which declared that nursing education should take place in institutions of higher learning, called for a two-level educational system, comprised of programs at the associate degree and baccalaureate levels, and the phasing out of the traditional hospital-based diploma schools (Kalisch & Kalisch, 1986). Today, diploma nursing programs are rapidly disappearing as identified in the decline in the number of diploma programs from 875 in 1961 to 119 in 1997. At the time of this writing, diploma nursing programs comprised less than 7% of all nursing education programs (National League for Nursing [NLN], 1997). Figure 3 identifies NLN data regarding enrollment in baccalaureate, associate, and diploma nursing programs.

Program Type

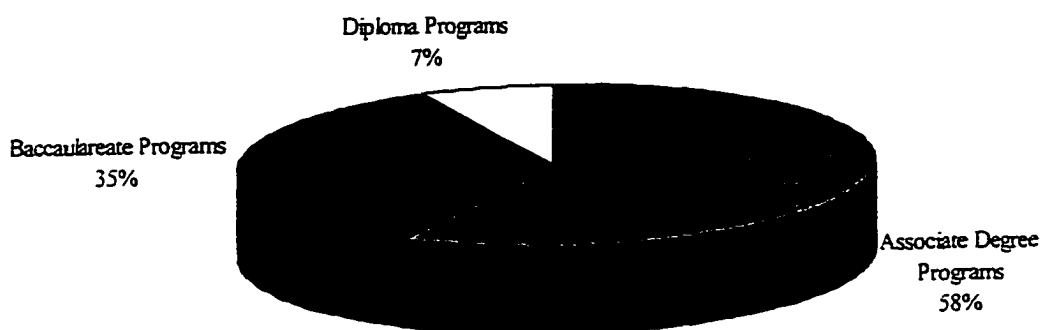


Figure 3. Education program for registered nurses in the United States.

Source: National League for Nursing, 1997.

Registered nurses who had received their basic nursing education in baccalaureate programs account for 25% of the 2.2 million licensed nurses in the United States, whereas 33% are graduates from associate degree nursing programs and 52% received their basic nursing education from diploma-hospital-based nursing education programs after 1977. Prior to 1977, diploma graduates accounted for 82% of all registered nurses reflecting the strong presence of diploma nursing education programs during those earlier years. Figure 4 provides 1980 to 1992 data on the educational preparation for registered nurses.

According to the National Center for Education Statistics (1992) 47% (90,956 degrees) of all health science degrees were awarded in nursing. Today, the rapid expansion of associate degree nursing programs is reflected in a significant increase in the number of associate degree nurses. A report by the National League for Nursing shows that 59% of the total nursing population graduated from associate degree programs

from 1990 to 1995 (1995b). In comparison, 31% graduated from baccalaureate programs and 10% from diploma programs. This basic nursing education data for the registered nurse population from 1980 to 1992 are provided by the National Sample Surveys of Registered Nurses (1994) is presented in Figure 4.

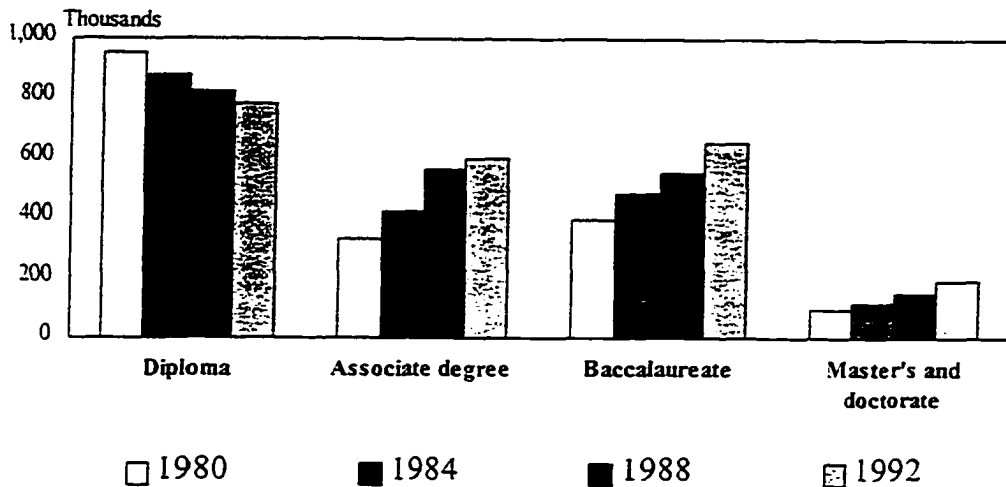


Figure 4. Basic nursing education of registered nursing population 1980-1992.

Source: National Sample Survey of Registered Nurses, Division of Nursing (1994).

More recent information provided by the National League for Nursing's 1995 Annual Survey revealed a 6% overall decrease in admissions to diploma nursing programs as compared to 1994 admission reports. The annual survey, based on data from 1,501 nursing programs throughout the United States, noted a 3.5% decline in new associate degree students, an increase of 1.8% in the number of students entering baccalaureate degree programs and a 26% drop in new students entering diploma hospital-based programs.

Projected numbers of graduates from basic nursing education programs for 1994-95 to 2019-20 reveal that the supply of registered nurses will increase slightly, although at a slower pace as compared to the country's total population. The number of baccalaureate prepared nurses will continue to grow while diploma educated graduates will continue to decline in number. Figure 5 presents projected data and trends for the number of graduates from basic nursing education programs through 2020.

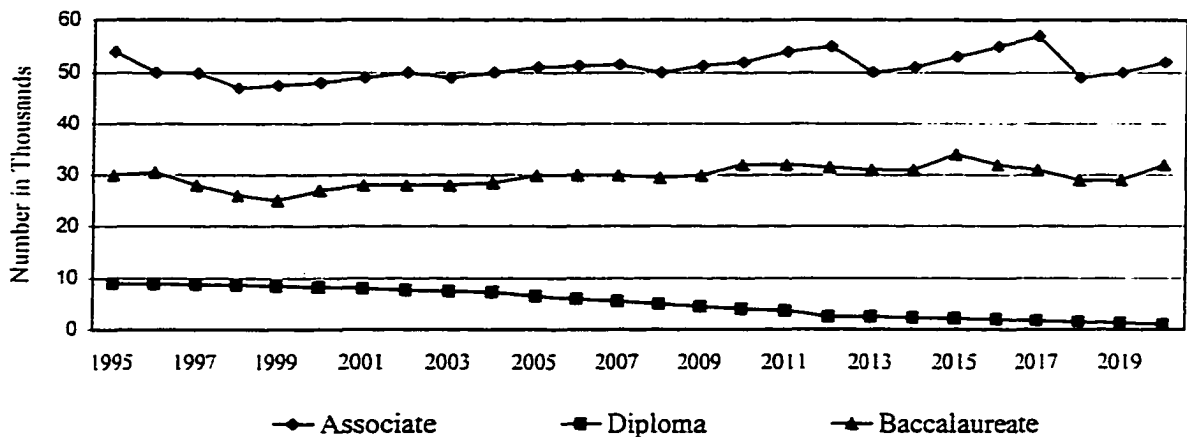


Figure 5. Projected number of graduates from basic nursing education programs for academic years, 1994-95 to 2019-20.

Source: Division of Nursing, Bureau of Healthcare Professions, 1996.

In order for nursing education to keep pace with the significant changes in the health care environment, diploma schools of nursing have faced the prospect of not being able to exist in the pending climate of change (Kalisch & Kalisch, 1986). As these schools closed in the 1980s, single purpose colleges of nursing and allied health began to develop. Single purpose or specialized colleges, according to the Classification

of Institutions of Higher Education in the United States, developed by the Carnegie Commission on Higher Education (1994) define specialized institutions as those schools which award a minimum of a bachelors degree in specialized fields such as health science degrees in nursing, medical technology, radiology and emergency medicine (Carnegie, 1994).

Environmental Change and Organizational Development

Theories of organizational development as they apply to institutions of higher education can be useful in analyzing the impact of environmental change on the organizational behavior and life cycles of allied health colleges. This section seeks to provide a theoretical explanation for the impact of change on educational organizations as they move through predictable life cycle stages. Understanding organizational life cycle models can help institutions maintain, and adapt when necessary, under changing environmental conditions.

According to the Bennis (1964) the general structure and design of institutions of higher education is much more adaptive and restorative than are traditional bureaucracies and hierarchical systems. Colleges, in general, have been described as loosely coupled (Weick, 1976), fluid systems (Cohen & March, 1974) that have a great capacity to survive environmental disruptions (Cameron & Whetten, 1983).

However, as reported by Katz and Kahn (1983), the mortality rate of colleges and universities in the United States was found to be high with 117.6 per 10,000 institutional closings between 1971 and 1981. Zammuto (1983) reported that since the early 1970s, 20% of all higher education institutions experienced a decline in enrollment (the highest in history) as well as the highest mortality rate reflected in the

number of deaths among colleges and universities; especially small, private comprehensive institutions. Cameron and Whetten (1983) concluded that many institutions are unable to adjust to environmental changes when unusual circumstances arise in their environments.

According to Cameron and Whetten (1983), transitions in institutions occur when there is a mismatch between environmental demands, institutional attributes, and strategies being pursued. These mismatches usually arise from changes in the external environment. As identified in the allied health colleges in this study, a significant mismatch occurred as the result of consumer and public demand which dictated the need for allied health degrees as opposed to certificate and diploma training programs. This environmental mismatch resulted in the need for allied health schools to transition to degree-granting colleges.

Organizational life cycles

The concept of organizational life cycles has achieved popularity among organizational theorists and researchers (Kimberly & Miles, 1980). This concept focuses on processes which involve organizational birth as well as organizational decline and retrenchment; phenomena which are prevalent in institutions of higher education. The term, organization life cycle, refers to predictable change in organizations from one state or condition to another. It focuses on evolutionary change in the sense that the development of organizations is assumed to follow an *a priori* sequence of transitions rather than to occur randomly or metamorphically (Cameron & Whetten, 1983).

Models of organizational life cycles demonstrate the presence of predictable transitions within an organization's life cycle and also identify a common set of problems and characteristics that are typical of organizational transitions over time. These models suggest similar life cycle stages which contain an entrepreneurial stage (early innovation, niche formation, creativity), a collectivity stage (high cohesion, commitment), a formalization and control stage (stability and institutionalization), and a structure elaboration and adaptation stage (domain expansion and decentralization). Studies by Miller and Friesen (1980) identify that the types of transitions in which organizations engage, as well as the dynamics of change that occur, are impacted by external forces.

According to Cameron and Whetton (1983), there are two major implications for institutions of higher education during periods of transition that can be drawn from the organizational life cycle literature. First, a greater understanding of the life cycle stages, with respect to the pitfalls and opportunities associated with each, can help institutions make these transitions less traumatic since transitions in higher education are motivated by imbalances or crises. Second, it is important for administrators in institutions of higher education to help prepare both themselves and their colleges for these transitions. Knowing that different problems are encountered in each organizational life cycle stage, administrators need to prepare for the transitions that will almost inevitably follow.

Strategic choices and organizational change

A second major characteristic of organizational structure is the result of the influence of external factors on the organization. Strategies for dealing with an organization's environment can depend on how interdependent and interrelated the organization is with its environment. According to Mintzberg and Westley (1992), strategy is a pattern of major and minor decisions that redirect the organization's resources toward environmental opportunities and away from environmental threats as the organization positions itself for possible changes in the future. Thus, an organization's strategic choices concerning its perceived environment can play a major role in shaping the structure, process, and future of the organization.

Miles and Snow (1978) note that organizational leaders have both the opportunity and responsibility "to view the organization as a total system, a collection of people, structures and processes that must be effectively aligned with the organization's external environment" (p. 6). These authors further cite the combined work of Drucker, Chandler, and Perrow which identifies that "structure tends to follow strategy and that the two must be properly aligned for an organization to be effective" (p. 8). Organizational decision makers must design a strategy in response to perceived opportunities and constraints of the external environment. This theory suggest that an organization that does not adapt to changing environmental circumstances may be destined for institutional failure.

In adapting to external environmental changes, it was noted that each of the presidents of the Allied Health Colleges in this study had engaged in strategic management. As identified in the organizational

development literature, each president had approached their management responsibilities by establishing "formal linkages between the external elements of the organization and internal decision-making or resource allocation functions" (Boulton, Lindsay, Franklin, & Rue, 1982, p. 501).

As defined by Pearce and Robinson, (1982), this pattern of adapting to external environmental changes is characterized by a number of steps: (a) assessing the external environment; (b) formulating the purpose, philosophy, mission, and key goals of the organization; (c) making major choices as to a particular set of long-term objectives and determining strategies needed to achieve them; (d) developing short-range objectives and allocating resources to achieve them; and (e) designing organizational structures and systems to achieve the goals.

According to Hodge and Anthony (1988), strategic management is "the process of adapting an organization to its environment to better accomplish organizational purpose and to sustain the organization's long-term viability by enhancing the value of its products and/or services" (p. 239). Strategic decisions are those key decisions that tie the organization's mission and purpose to its environmental opportunities and constraints; they are long-term decisions that have a major impact on the organization.

The strategic choice perspective discussed by Child (1984) calls "for a recognition of the dynamic interchange between the organization and its environment; that is, the perception of the environment causes certain strategic moves that, in turn, appear to affect the environment and either validate or serve to modify the strategic choice" (p. 22). Weick's (1969) work also argues that organizations do not passively

respond to their environments, but, rather, interact with their environments through a series of choices regarding resource allocation, market domain, technologies, and products.

The Future of Allied Health Education

The delivery of health care services in the United States has changed dramatically over the past decade. Many new developments have influenced health care and the health professions during the past decade and further changes can be expected as major efforts are initiated at the state and federal levels to address health care issues (Pew Health Professions Commission, 1993). These changes have significant implications for health manpower need, for the nation's primary sites for education and training of health professionals, and the provision of a major and growing share of health services (Bulger, 1995, p. S31).

According to Douglas (1985), one of the most urgent challenges confronting educators is to determine how to educate health care professionals for new practice environments. Considering the dramatic changes in the health care environment and its impact on health care practice, this is a significant challenge to allied health educators. Douglas (1985) further notes that such changes will challenge the assumptions underlying current models of health professional education.

Leaders in health care sense a growing crisis about the health care system which is being fueled by rapidly rising health care costs, a growing elderly population and advances in technology. Federal and state governments, employers, payers, and the public are looking for ways to both control costs and expand access to health care. They are demanding

greater accountability from health care providers through demonstrated cost effectiveness, quality of care and productivity (Bulger, 1994).

The 1995 Pew Health Professions Commission, which represents health care public policy, has identified a number of issues for allied health education and workplace reform. Looking at reform in the health professions, the Pew Commission has called upon progressive schools to respond to a number of educational challenges. Dowd (1994) relates that one major recommendation by the Pew Commission is to provide health care professionals with a variety of competencies, including "expanded accountability" and the ability to "continue to learn." According to the Pew Commission, the education of health care professionals is an essential element in reforming the nation's health care system and that, "without continuous exchange between the education and the care delivery system, health care reform is impossible" (O'Neil, 1993, p. 3).

Prager, at the 1995 North Central Association of Colleges and Schools annual meeting, identified that allied health curricula will need to respond to the changing nature of practice. For example, the scaling down of health care to help contain costs means that more highly trained nurses will likely provide services traditionally performed by physicians while allied health technicians will likely replace nurses in performing other kinds of health care. This trend is of real consequence for two- and four-year institutions in that it suggests a vastly different conception of a health care practitioner education at every level of preparation.

Summary

Allied health education is an ever-changing, expanding, dynamic process which is currently responding to the health care needs of this nation. This chapter presented a review of the literature by examining nursing and allied health education from a variety of sources which defined allied health, explored the development and evolution of nursing and allied health education, described the current status of allied health programs as well as the future role of allied health education. Organizational development theory, which accounts for the relationship between a changing environment of health care and the response of hospital-related education programs to prepare health care professionals for the future was included.

A number of experts maintain that allied health education is a critical factor in meeting the health care needs of the nation. Although hospitals continue to sponsor almost half of all accredited allied health programs and provide the principal resource of clinical experience for students preparing for allied health professions, a review of the literature reveals that essentially no research has been conducted in the area of hospital-related allied health colleges.

The purpose of this study is to discover and understand the role of hospital-related Colleges of Health Sciences in educating qualified health care professionals. Chapter 4 will explore the findings of this study to include how changes in health care have impacted hospital-related education, major issues impacting allied health programs, the role of these colleges in health care and higher education, and the role of the president in providing leadership for these institutions.

CHAPTER 3

METHODOLOGY AND PROCEDURES

Introduction

The purpose of this study was to investigate and identify the role of hospital-related colleges in response to changes in the health care system; to achieve an understanding of the leadership role provided by the presidents of these institutions; and to determine the role of these colleges in health care and higher education today. Due to the nature of inquiry reflected in this research study, a qualitative research methodology was chosen to investigate and evaluate the research objectives. Using this approach, the researcher utilized two common qualitative techniques of data gathering that included tape recorded interviews with nine allied health college presidents and document analysis.

The research methodology utilized for this study was divided into five stages that included: (a) initial identification of the research study and objectives, (b) identifying the research participants, (c) selecting the qualitative research process as the research method appropriate for the project, (d) determining the means of data analysis and, finally, (e) establishing the means for reporting the data. Through a process of typological analysis, data reduction, data display, conclusion drawing, and verification, the research data were then interpreted with respect to major issues impacting hospital-related allied health colleges; the unique role of these institutions in health

care and higher education and the leadership role of the college presidents.

Rationale for the qualitative research design

The selection of an appropriate methodology for the empirical portion of this study was based on the type of data sought as well as the purpose and objectives of the study. Lincoln and Guba (1985) stress the importance of fitting the inquiry paradigm to the theory selected to guide the inquiry. The exploration of the major issues impacting allied health colleges allowed the use of the qualitative inquiry paradigm to obtain and analyze pertinent descriptive data from interviews and written documents. As a form of scientific inquiry, Munhall and Boyd (1993) describe the process of qualitative research:

Qualitative research involves broadly stated questions about human experiences and realities, studies through sustained contact with persons in their natural environments, and producing rich, descriptive data that help us to understand those persons' experiences. The emphasis is on achieving understanding that will, in turn, open up new options for action and new perspectives that can change people's worlds. (pp. 69-70)

Human instrumentation

Merriam (1988) states that a qualitative approach offers the researcher a unique opportunity to create an understanding of a problem or situation. Because the necessary data are primarily descriptive, the qualitative approach utilizes the researcher as the "main instrument of investigation" (Burgess, 1984) and as the "data gathering instrument" to analyze the data (Lincoln & Guba, 1985). Glesne and Peshkin (1992) describe the qualitative researcher:

Since qualitative researchers deal with multiple, socially constructed realities or 'qualities' that are complex and indivisible into discrete variables, they regard their research

task as coming to understand and interpret how the various participants in a social setting construct the world around them. To make their interpretations, the researchers must gain access to the multiple perspectives of the participants. Their study designs, therefore, generally focus on in-depth . . . interactions with relevant people in one or several sites. The researcher becomes the main research instrument as he or she observes, asks questions, and interacts with the research participants. (p. 6)

Thus, the qualitative researcher is able to examine first-hand the thoughts, perceptions, and experiences of the research participants within their setting and from the respondents point of view "a descriptive record of written and spoken words and behaviors" results (Taylor & Bogdan, 1984, p. 11). Whenever possible, the qualitative research strives for a "thick description" of the phenomena under study (Geertz, 1973).

Research questions

Based on the review of the literature in Chapter 2 and the identified lack of research and study regarding hospital-related allied health colleges, the following four research questions were identified as the focus of exploration for this research study:

1. What impact have the changes in the health care delivery system had on hospital-related allied health colleges?
2. What major issues have hospital-related colleges of health sciences experienced in response to these changes?
3. In preparing qualified health care professionals for the future, what is the role of allied health colleges in health care and higher education?
4. As a college president, what leadership characteristics are critical to the success of educational institutions in responding to a changing health care environment?

Selection of participants

This study was conducted with the assistance of nine presidents of allied health colleges throughout the United States. The college presidents, who comprise the total membership of the National Consortium of Health Sciences, were engaged in this study as identified experts and leaders in the field of allied health education. The study participants represented colleges from seven states (Connecticut, Florida, Indiana, Ohio, Louisiana, North Carolina, and Virginia) and three national regional accrediting associations (New England, North Central, and Southern). Each of the college presidents has a demonstrated record of leadership and has been involved in the administrative leadership of their respective Colleges throughout the past decade. As experienced "experts" in their field, it was believed that the selection of these college presidents would best meet the identified research objectives.

The allied health colleges represented in this study were associated with major medical centers and an integral part of the health care educational system within their communities. Therefore, the college presidents were clearly aware of impending changes in the health care delivery system and their implications for educating qualified health care professionals. The academic histories of these allied health programs were similar in that each of the colleges were originally hospital-based schools that provided certificate and diploma training programs for nurses and allied health students. Each college president had led or experienced the transition of his or her respective hospital-based educational programs to accredited, degree-granting Colleges of Health Sciences. All of the colleges offered associate and/or baccalaureate degrees in nursing and allied health programs in addition

to certificate and continuing education programs in the allied health fields.

An introductory letter (Appendix A) explaining the purpose of the proposed research study and requesting their willingness to participate in the study was sent to each of the nine college presidents. All nine presidents responded with signed copies of the consent form (Appendix B), indicating their willingness to participate in the study.

Sampling

According to Spradley (1980), guidelines for the selection of the study participants include: simplicity, accessibility, unobtrusiveness, and permissibility. Although the fundamental goal of qualitative inquiry is to provide a holistic picture of the phenomena under study, reality demands that limits be placed on the scope of the research and the resulting sample in order that focusing of attention can take place (Crowson, 1987). Burgess (1984) notes that the qualitative researcher can not study all of the events or individuals associated with certain situations due to the complex and multidimensional nature of this type of research. Therefore qualitative research usually involves smaller samples in fewer settings than is found, for example, in survey research.

A purposive or criterion-based sample of the nine allied health college presidents who comprised the membership of the National Consortium of Allied Health Colleges was deemed the most suitable for this investigation. By utilizing purposive sampling, the qualitative researcher is able to acquire the greatest insight and understanding of the problem or situation being studied (Merriam, 1988). The allied

health college presidents, who represented nine allied health colleges throughout the United States, provided an ideal opportunity for exploring the research objectives identified in this study.

Methods of Data Collection

Qualitative research refers to both the method of data collection and the written record which results from the analysis of the data. The continuum of qualitative research methods runs from very loose designs that seem to be heavily intuitive to very tightly prestructured and documented strategies (Goetz & LeCompte, 1984; Lincoln & Guba, 1985). Within that range, two common qualitative methods of data collection, in-depth interviews and document analysis, were selected as most useful in achieving the objectives of this study.

Interviews

The interview method used in this study focused on the identification and synthesis of responses of nine college presidents. Study participants were asked to participate in two, one-hour interview sessions which were tape recorded, transcribed, coded, and analyzed. Observations were recorded as handwritten notes and field notes from the interviews were maintained.

The interview strategy, which is advocated by Lincoln and Guba (1985), provides for reconstructions of past events, extension, and verification of information. Throughout the interview process, explanations were drawn from allied health and higher education literature and were reflected as emerging themes. According to Crowson

(1987), personal and telephone interviews used for this study were well suited for data collection:

The interview (either structured or unstructured) provides an opportunity to gather data in the respondents' own words, to focus inquiry more pointedly toward a study's central questions, to draw data efficiently from a setting, and to seek information directly from the persons who are most in the know in the setting (p. 190).

Throughout this process, the researcher was able to create a powerful "lens" through which to view the health science colleges from a higher education perspective. "Thick" descriptive data were obtained for analysis and categories were developed to illustrate or support major issues identified by the allied health colleges presidents; the role of health science health colleges in the areas of health care and higher education; and their perceived leadership role as educational institutions responding to environmental change in health care.

Written documents

In addition to the interview data, written documents that included college catalogs, student handbooks, program descriptions, accreditation reports, and archival materials from each of the nine allied health colleges were examined. Referred to as document analysis (Merriam, 1988), written documents were reviewed, examined, and analyzed to establish a data base that could be integrated with the data gathered during formal taped recorded interviews and informal communications with the college presidents.

Written records provided an ideal unobtrusive measure (Lincoln & Guba, 1985) and as the study proceeded, relevant information was reconstructed through available documents to identify major issues for each college. In addition, information needed to close gaps in the data

base were obtained informally from the college administrators. Due to the distant locations of the allied health colleges, it was not practical to obtain additional written information such as board minutes, strategic planning materials, faculty senate minutes, budgets and annual financial reports. However, from available written documents, information was drawn and categorized with the emerging interview data.

Summary of data collection methods

A review of formal interviews, informal communication, and written documents was conducted, and once analyzed, comprised the data base for this study. Relevant information that extended the data base and enhanced data analysis and interpretation was sought in order to gain a "thick description" and rich analysis by describing more than the intentions, motives, meanings, and context of the situation (Geertz, 1973). Merriam (1988) prescribes that in qualitative research, the collection and analysis of the data should occur simultaneously. As the study continued, the collection and analysis of data proceeded interactively and consequently provided direction for each other.

Through these methods of data collection and analysis, the researcher was able to comprise and analyze a base of information to discover the similarities and differences among the nine allied health colleges, explore the impact of health care changes on allied health education, identify the role of allied health colleges in health care and higher education, and understand the leadership role of allied health college presidents.

Managing the Data

The strategy chosen for this study corresponds to Lincoln and Guba's (1985) definition of typological analysis which applies to externally derived theoretical categories of new data, examines relationships among the typologies, and allows for their extension and refinement. Categories and variables were modified to fit the data as the study progressed. Following the interviews, the researcher coded the data and developed a typology of categories of concepts for analysis. Emerging themes and identified issues provided for the organization of the findings for the study. Janesick (1994) describes this process of inductive analysis as one in which the qualitative researcher uses inductive analysis:

The qualitative researcher uses inductive analysis, which means that categorized themes and patterns come from the data. The categories that emerge from field notes, documents and interviews are not imposed prior to data collection. Early on, the researcher will develop a system of coding and categorizing data (p. 215).

Descriptive data were used to develop conceptual categories to illustrate, support, or challenge theoretical assumptions held prior to the data gathering (Merriam, 1988). The researcher, utilizing the emerging data, developed a typology of categories that conceptualized different approaches (variables) to the task of analysis. This strategy, known as typological analysis and promoted by Lincoln and Guba (1985), is an example of a naturalistic inquiry method.

Typological analysis applies theoretical categories to new data, and provides for elaboration and refinement of concepts as the research proceeds. Pattern codes (possible explanatory or inferential codes) are hunches that may or may not be supported and must be revised or

discarded in an effort to understand the patterns, the recurrences, and the whys. Typological methods were used to analyze the data in this study and were further refined as the study progressed.

Documentation review and in-depth interviews were conducted and organized according to classifications derived from the initial framework for typological analysis (Goetz & LeCompte, 1984). Typological analysis was applied to emerging categories of new data, relationships among the typologies were examined, and further typologies were identified as the research proceeded (Lincoln & Guba, 1985). The process is an iterative one; as new understandings emerged throughout the research process.

Data Analysis

The nature of qualitative research includes a number of research strategies and methods of data collection unique to qualitative methodology. The data for this study were collected through interviews and were first recorded as sets of working notes. An important and complex step in the qualitative research process was the management and analysis of the data in which major themes were identified by the researcher and categorized throughout the analysis of the data whenever possible. Consistent with the qualitative research process, categories and variables were modified as the study proceeded.

According to Merriam (1991, p. 130), data analysis consists of "compressing and linking data together in a narrative that makes sense to the reader." Taylor and Bogden (1984, p. 139) identify the goal of data analysis to "come up with reasonable conclusions and generalizations based on a preponderance of the data." Miles and

Huberman (1984, p. 114), identify the importance of data analysis for the qualitative researcher: "The problem for the qualitative researcher is how to select and display data that will represent faithfully the changed state of persons, relationships, groups or organizations, seen as one or more outcomes of interest."

Accordingly, qualitative data can preserve chronological flow, assess causality, and derive explanations (Miles & Huberman, 1984). In doing so, they propose that the analysis of qualitative data generally follow three concurrent and interactive activities that occur before, during, and after data collection. For the purposes of this study, activities which included data reduction, data display, and conclusion drawing/verification were followed.

Data reduction

Data reduction included a process of selecting, focusing, simplifying, abstracting, and transforming the "raw" data from the transcribed interviews and field notes. This process began with the selection of the conceptual framework and identification of research questions which were developed to guide the study as well as the selection of methods of data collection. Thus, the process of data reduction began before the data was collected and continued until the data was actually coded for themes, clustered and summarized. According to Miles and Huberman (1984), data reduction is a key component of analysis which sharpens, sorts, focuses, discards, and organizes data so that conclusions can be drawn and verified. According to Miles and Huberman (1984) the role of the qualitative researcher is to focus on "critical incidents" in order to make gradual sense of a social

phenomenon by using sampling activities such as contrasting, comparing, replicating, cataloguing, and classifying the object of one's study.

Data display

Data display provided for the presentation of information in an organized, accessible, and compressed form in order that accurate conclusions could be drawn or action taken. Miles and Huberman (1984) describe data display as an integral part of analysis as well as a data reductive activity. This activity allowed for a more reduced set of data that increased the probability of drawing meaningful conclusions as well as taking the next proper step in the data analysis.

Conclusion drawing and verification

The third step in the analysis of the qualitative data involves conclusion drawing and verification. This phase is characterized by analyzing meanings, noting patterns, themes and explanations, possible causal flows, and propositions. While the initial conclusions may be vague, they become increasingly explicit and grounded (Miles & Huberman, 1984). Conclusions were verified in this phase by checking results with respondents and the analysis proceeded with emerging meanings and validity testing.

Summary of data analysis

The three types of analytic activity and data collection form an interactive, cyclical process which include data reduction, data display, and conclusion drawing/verification. These activities were interwoven before and throughout the data collection process and provided for the "analysis" of the data. Qualitative research which

typically includes descriptive (data collection, reduction, and display) and explanatory (conclusion drawing and verification) phases are characterized as having multiple and iterative strategies. Thus, the analysis of the data analysis provides information that is condensed, clustered, sorted, and linked over time.

Refinement and Validation of the Research Process

According to LeCompte and Goetz (1982), the researcher's central concern should be directed toward an accurate and faithful portrayal of the client's "lifeways." Accurate reporting of colleges and universities is not a simple task due to their complex and inconsistent institutional environments, according to Crowson (1987), who asserts that trustworthiness is an especially salient concern and issue in the study of higher education. Lincoln and Guba (1985, p. 300), note that well-designed qualitative research should focus upon "trustworthiness" and "confirmability" rather than the more conventional notions of reliability, validity, objectivity, or generalizability found in quantitative research. The following section addresses several strategies that were incorporated into this qualitative study that address the criteria of trustworthiness.

Trustworthiness

Lincoln and Guba (1985) emphasized the need to meet four constructs in order for well-designed qualitative research to have an established norm of trustworthiness in the research findings. These constructs are identified as credibility (the accuracy of portrayal; prolonged engagement (persistent observation, triangulation);

transferability (a study's data base may be applicable to another context); dependability (process is consistent, internally coherent, ethically aboveboard); and confirmability (findings are grounded in data, logical, and acceptable and can be confirmed by someone other than the researcher) of the research findings (Lincoln & Guba, 1985).

Triangulation

Triangulation by using multiple data sources and collection methods was another goal of this study. Internal validation was promoted by utilizing multiple sources of data (interviews and documents), the perceptions of the investigator, and reliance on internal consistency as the criterion of validity wherever possible. Triangulation (supporting a finding by showing that independent measures agree with it or, at least, do not contradict it) was used to counteract bias. Triangulation (Webb, Campbell, Schwartz, Sechrest, & Grove, 1966) also refers to the use of internal indices to provide convergent evidence. The goal was to ensure dependability of a finding by seeing or hearing multiple instances of it from different sources, and by assuring that the findings were consistent with other findings. The goal was to promote reliability and internal validity by utilizing multiple sources of data, the perception of the investigator, and internal consistency as the criterion of validity wherever possible.

Peer debriefing

The initial descriptions of each college was developed independently by the researcher. The results were examined by a second, non-participant observer researcher who functioned as an auditor for confirmability, dependability, and credibility (Crowson, 1987). As the

findings accumulated, possible explanations for significant occurrences were considered. This process was repeated until the investigator was satisfied that the descriptions for each college were as complete as possible.

Member checks

The interview segments and their interpretative descriptions were submitted to each college president for review and validation as well as correction of any inaccuracies. Following this procedure, member checks were implemented in which each study participant had the opportunity to review and comment on the evaluation of his or her transcription. Study participants were asked during the data collection phase to review their interviews as well as the researchers' interpretations. In addition, the research participants had the option to add or modify information on their typed transcripts prior to analysis and incorporation of their interview content into the research study report. According to Lincoln and Guba (1985):

The member check, whereby data, analytic categories, interpretations and conclusions are tested with members of those stakeholding groups from whom the data were originally collected, is the most crucial technique for establishing credibility. If the investigator is to be able to purport that his or her reconstructions are recognizable to audience members as adequate representations of their own realities, it is essential that they be given the opportunity to react to them. (p. 314)

Methodological log

A methodological log was kept to document how the research evolved, how information was obtained, and how data were collected, analyzed, interpreted, and reviewed, as well as all other procedures and evidence of the research process. Field notes that included codes,

memos, and identified concepts that related back to the theory, provided external documentation to an observer. These methods were documented to assist others in understanding how the research process was conducted and maintained.

In summary, the study sought internal validity by utilizing multiple sources of data and the validation of the study participants in this research. An external resource person served as an auditor by evaluating the data for confirmability, dependability, and credibility (Crowson, 1987) throughout the study. Credibility for this research study was established through the use of triangulation, peer debriefing, and member checks.

Summary

Based on the objectives and nature of the study, a qualitative research methodology was identified. The unexplored and multifaceted nature of this research topic prevented the reduction of data to any quantitative format, even simple numeric scales. Thus, a qualitative research design was selected to provide the data and analysis of the role of allied health colleges in response to a changing and dynamic health care environment.

Research questions emerged from the qualitative research process and focused on exploring the research objectives of the study. The primary methods of data collection consisted of tape recorded interviews with nine allied health college presidents and written documents from their respective colleges. The data obtained from the document reviews and transcribed interviews were then categorized according to themes,

analyzed, and comprised the data base for the study, thus contributing to a "thick description" of issues identified in the research study.

As the research evolved, translation of concepts and definition of variables required effort, thought, and searching of the literature. The translation of concepts and the definition of variables was achieved through typological analysis, data reduction, data display, conclusion drawing, and verification. The process was an iterative one; as new understandings emerged throughout the research process. Since the body of research was notably lacking regarding hospital-based or specialized allied health colleges, it was believed that this study would add to the body of higher education literature as well as elicit additional questions for further study.

CHAPTER 4

PRESENTATION AND ANALYSIS OF DATA

Introduction

Chapter 4 presents the findings and an analysis of the data that emerged during the qualitative research study. Based on research questions that evolved from the qualitative research process, the study explored a spectrum of allied health education issues. Data, gathered from tape recorded interviews of nine allied health college presidents, were transcribed, analyzed, and categorized according to major themes.

This chapter addresses the research findings in three major areas. The first section describes the impact of changes in the health care delivery system on hospital-related allied health colleges with respect to three developments: (a) managed health care programs, (b) curricular redesign for allied health programs, and (c) the potential erosion of federal funding. The second section of this chapter addresses the unique contribution of allied health colleges with respect to their role in health care and higher education. Key points in this section include the college's role with respect to: (a) providing a valued education to students, (b) as an important resource for workforce development, and (c) the unique medical center-college partnership that characterize these programs. Section three addresses the leadership role of allied health college presidents and the characteristics that these presidents consider critical to the success of their colleges.

Selection of the Study Participants

Nine members of the National Consortium of Health Science Colleges were selected as participants for this research study. The National Consortium is comprised of college presidents who have demonstrated expert knowledge, leadership, and experience in the administration of their respective colleges of health sciences. The nine hospital-related allied health colleges represented in this study are located in seven states and represent three national regional accreditation associations in the United States (New England Association, North Central Association, and the Southern Association for Colleges and Universities).

Each of the allied health colleges had transitioned from traditional hospital-based providers of certificate and diploma education to accredited "specialized" degree-granting allied health colleges. At the time of the study, the nine hospital-related colleges offered a variety of programs in allied health careers at the certificate, associate, and baccalaureate degree level as identified in the Table 1.

According to The Lewin Group (1998), hospital-related colleges are an important source of allied health and nursing professionals. The Bureau of Labor Statistics (1998) projects a growth in employment opportunities for almost all of these occupations, highlighting the importance of training opportunities offered by hospital-related colleges.

Table 1. Educational programs offered by hospital-related colleges

Program Type	Number of Programs			
	Certificate	AD	BS	Total
EMS		3		3 ^c
Health Information		1		1 ^c
Health Care Management	1	3		4
Medical Lab Technician	1	2		3 ^a
Nursing	6	9	5	20 ^b
Medical Assistant	1	2		3 ^c
Occupational Therapy Asst		1		1 ^a
Pharmacy Technician	1	1		2 ^b
Physical Therapy Asst		2		2 ^b
Physician Assistant			2	2 ^b
Radiation Therapy	3	2		5 ^b
Radiology Technician	1	5		6 ^b
Respiratory Care		2		2 ^b
Surgical Technician	3	2		5 ^b

Bureau of Labor Statistics: between 1996 and 2006 employment is projected to:

- ^a increase 10 to 20 percent
- ^b increase 21 to 35 percent
- ^c increase 36 percent or more

Research Methodology

Prior to the beginning of this study, each study participant was asked if he or she would be willing to participate in a qualitative study intended to identify the impact of changes in the health delivery system on allied health colleges, the role these colleges play in educating health care professionals, and the leadership characteristics of allied health college presidents. Following the receipt of signed informed consent forms, tape recorded interviews were conducted and written college documents reviewed over a one-year period.

Recorded interviews were conducted in person and by telephone. Interview questions emerged throughout the qualitative research process and were designed to elicit a number of responses regarding educational issues for hospital-related allied health colleges, the impact of changes in the health care delivery system for these colleges preparing health care providers, the evolving role of hospital-related allied health colleges in health care and higher education, and the leadership characteristics that contributed to the success of these allied health schools as they responded to a changing and dynamic health care environment. Respondents were advised that they would receive a copy of the transcribed interviews and would have opportunities to modify, alter, or add to their responses prior to the final inclusion of their comments in the findings. The participants were also advised that they would have an opportunity to provide comment on the researchers' observations and interpretations prior to the final submission of the research study.

Data Acquisition and Analysis

Consistent with the qualitative research method, the phases of data collection and analysis were overlapping rather than sequential for this study. Analysis during data collection allowed the researcher to cycle back and forth between thinking about the existing data and generating strategies for collecting new and often better quality data. This qualitative process, described by Miles and Huberman (1984), was found to be self-corrective and assisted in offsetting the researcher's built-in blind spots.

Because the study was primarily concerned with informational and descriptive data, the content of each tape recorded session was analyzed following each interview. Topics were also analyzed in order to establish thematic linkages between the perceptions and identified issues provided by the study participants. These thematic linkages were useful in demonstrating primary relationships among key issues from each of the transcribed interview sessions and assisted in data reconstruction and interpretation (Crowson, 1987).

Emerging Themes and Findings

The following sections of chapter 4 present the findings of this qualitative research study. The identification and analysis of three major themes which include the impact of changes in the health care delivery system on hospital-related allied health colleges; the unique contribution of allied health colleges with respect to their role in health care and higher education; and the leadership role of allied health college presidents and the characteristics that these presidents

consider critical to the success of their colleges are presented. Key areas of concern and consensus among the research study participants are also discussed.

The Impact of a Changing Health Care Environment on Allied Health Colleges

The participating presidents in this study conveyed an informed understanding of national health care developments and the implications of these health care changes for their hospital-related allied health colleges. Acutely aware of the emphasis on containing health care costs within their respective health systems, three major issues associated with the changing health care environment emerged from the interview data with respect to the impact of health care changes on allied health colleges. These areas will be addressed in the following section and include: (a) the advent of a managed health care environment, (b) innovative curricula changes that reflect changing health care and include new educational competencies and multiskilled training, and (c) the potential loss of federal funding for nursing and allied health programs.

Managed health care

Due to consumer and public demand, the United States health care system has placed a greater emphasis on improving the quality of health care while holding down or reducing costs. As a result of this effort, managed health care programs have developed throughout the country and have become an integral part of the changing health care system. The major goal of managed health care is to contain costs in the changing

health care environment. The presence of these programs will continue to impact hospitals and health care systems that sponsor educational institutions well into the future.

According to the college presidents, the development of managed care health care systems has had significant implications for allied health colleges. A number of presidents reported having experienced cost containment efforts within their health care systems. "Rightsizing," which in health care means "the shifting or restructuring of care," also implies reducing the complexities and variations that characterize today's health professions, education, service delivery and regulatory environment (National Commission on Allied Health, 1995, p. 40). President B related that rightsizing had found its way into his area a year ago and had resulted in greater demands on his educational programs: "We are experiencing rightsizing or downsizing, as they call it. And while our hospital census is down, our college enrollment isn't down. We keep admitting more and more students to meet the demand and yet, we keep cutting budgets."

Driven by economic and public concerns related to health care costs and quality, downsizing has produced significant shifts in the health care delivery system and a managed care approach to health care. Dr. B described the impact of managed care delivery system in his geographic area: "We're just beginning to deal with the challenges of downsizing and efficiency moves. This will be problematic and there will be a continued need to meet significant challenges that will be facing us as health science colleges."

As a result of the number of changes in the health care environment, many of the colleges had shifted their programs and

curricula to respond to the advent of a managed care environment as described by President A: "There has been a definite impact on our programs and our curricula in response to managed care and changes in the health care environment. The focus of our nursing education program has moved from hospital-based care to home care."

The following observations made by President A illustrate an awareness of the changing health care delivery system with respect to a paradigm shift from an illness to wellness perspective:

One dimension of health care change that we are looking at in education is the shift from an illness perspective to a wellness model. We need to help our health care students understand what wellness is, as opposed to illness. We also need to explore ways in which we can develop a health care educator to teach in schools, nursing homes, and industry in order to help people understand what you need to do to be well.

Innovative approaches to allied health education

The presidents expressed the need to focus on the changes in the health care system and reassess the role of their colleges in educating allied health students for the 21st century. Within this context, the presidents identified the need to strengthen interdisciplinary and core curricula as well as add new clinical programs to prepare graduates to meet the workforce needs of their communities.

According to a National Commission report (1995), a major challenge for allied health educators in the coming decade will be to examine the premises upon which current educational practices are based, with the courage to undertake revisions when necessary. The curriculum that prepares the allied health professional will have to be reevaluated and refocused more towards prevention and health promotion than on treatment and cure.

As the roles and responsibilities of allied health practitioners change, education must change to meet the needs of a new health care workforce. The college presidents were attempting to deal with questions regarding the current and future health care system and how to educate health care practitioners. Questions about what the constellation of health care providers would look like, how their colleges would provide for the various types of health care providers, and the future health care needs of society were being asked. President C noted the importance of allied health colleges in educating allied health graduates for the future:

One of the major issues in health care is that we are moving away from a patient-oriented focus of care to a preventive focus. There are many health care institutions that are talking about managed care systems and implementing a managed care or case management approach to health care delivery. It's important that we define how our graduates are going to be used in this new system and what competencies are going to be required.

Curriculum redesign and program changes

Major curriculum changes were taking place in a number of the allied health colleges in response to health care reform with respect to new certificate and degree programs. Dr. B identified that his college was re-positioning their curriculum to offer greater latitude and flexibility to meet the educational needs of their allied health students:

We're currently repositioning our programs in response to changes in the health care delivery system. For example, we're adding a baccalaureate level of nursing to our two-year nursing program next year. This gives us the latitude and flexibility to adapt our programs to the needs of our students. We will be able to take professionals and help them re-tool their skills so that they can be more attractive to the market. We continue to scan our programs to determine which health care providers are in short supply in our community and to make sure that we are providing appropriate opportunities for training.

Several presidents addressed the need for a "sensible response to curriculum redesign" by responding to the "moving targets of health care system change." Research participants stressed the need to coordinate current allied health education with the emerging needs of a future health care system through a continuing feed-back loop between education and practice. In addition to establishing a close working relationship with their respective health care systems, many of the colleges conducted graduate follow-up studies that incorporated employer perceptions as a direct measure of how well their curricula was preparing graduates for the challenge of a changing health care environment.

Educational competencies

According to the research participants, allied health practitioners will be expected to have a strong foundation in the sciences with entry-level competencies such as critical thinking, problem solving, decision making, information technology, as well as excellent interpersonal and communication abilities. Each of the allied health colleges in the study had identified the importance of incorporating these educational competencies into their curricula that included an emphasis on critical thinking, problem solving and the use of information. President D stressed the need for health science programs to incorporate critical thinking into their curriculum: "We need to require our students to ask themselves. . . . How do I think? Why do I think? What about the world around me? How do I relate to the world around me? How do I relate to me? These things are essential."

According to the Pew Health Professions Commission (1993), health care providers will be learning specific tasks, competencies, and procedures that they will be credentialed or certified to practice rather than a distinct profession or discipline. President H commented that allied health programs will need to provide students with cross-discipline learning experiences: "In the emerging health care delivery system, our students, as graduates will be required to work together as members of interdisciplinary teams with a number of cross-discipline responsibilities. We're focusing our curriculum on these learning experiences."

A multiskilling approach provides more flexibility in that health care providers would obtain additional training or recertification in tasks that are needed depending upon the situation in which the practitioner is rendering care (Pew Commission, 1993). In response, allied health colleges are preparing to provide an effective core curriculum and plan to prepare new practitioners to function with multiple skills for greater job security and flexibility. President C commented on the decision to prepare students with a competency based multiskilled curriculum at her college: "Our college has implemented a program that adds certain skills or competencies through modules. This type of curriculum offering is in response to what we believe is needed for a changing health care environment."

New health care providers will be cross-trained with skills in nursing, physical therapy, occupational therapy, and speech. How health care graduates will be utilized and the competencies that will be required of them as newly defined health care professionals must be identified. The colleges represented in this study were in the process

of developing innovative curricula to prepare allied health graduates to work as competent, multiskilled health care providers for both the current and future health care environment.

Preparing multiskilled health care providers

The presidents interviewed for this study concurred that a newly defined multiskilled health care worker will be a major factor in the approach to the nation's health care needs for the future. Today, the concept of cross-trained or multi-competent allied health practitioners is seen as an innovative and cost effective solution to staffing hospitals, physician offices, and clinics. As revenue restrictions force hospital administrators to examine ways of controlling labor expenses, employers are becoming increasingly interested in labor productivity by decreasing specialization through downsizing or rightsizing.

The Pew Commission, in its 1993 report, called for cross-trained or multiskilled health care providers. With respect to curriculum redesign, a number of presidents outlined the need for multiskilling or crosstraining programs. President H predicted that the Pew Commission's recommendations will have a significant influence on allied health colleges with respect to the redesign of their curricula and the development of crosstraining and multi-disciplinary degree programs:

The recommendations of the Pew Foundation are having a great deal of influence on our allied health programs. We are looking at crosstraining programs and multi-disciplinary degrees that emphasize case management, keeping people healthy at the lowest cost in a managed care environment.

Other research participants noted the importance for implementing multiskilled curricula into their existing programs. President E

described the rationale for implementing multiskilled programs into her college curriculum:

We're on the verge of implementing new programs which will reflect multiskilling, multiple tracks and modules in order that students may develop their own package, based on where they think they want to work. We believe that the demand for health care providers who are multiskilled will be implemented within a year. It's important, that as health care educators that we develop a pool of these people.

As President B observed: "I believe we need to graduate students with more than one discipline with more than one field of expertise. This is the type of preparation that will make them more marketable to the employer." President C concurred with this view and related, that a multiskilling curriculum had been incorporated into her health science college:

We believe that there is a need for a variety of health care providers. Currently, we're developing a core curriculum that every health care worker should have. Within the new curricula, we're designing a crosstraining or multiskilling approach. We're also keeping a very close watch on state-wide and national projections for where health care is going and who is going to deliver the health care. It's important that we incorporate those experiences into the curricula.

Presidents interviewed for this study emphasized the need to think through the implications of training multiskilled health providers. Each of the colleges in this study had addressed the need for curriculum redesign by beginning to identify the tasks or competencies that allied health graduates would need to perform as cross-trained or multi-competent health care practitioners. However, President H cautioned that the impact of a new multiskilled health care provider on the consumer will require careful implementation and evaluation: "It's going to require us to educate our students and our consumer, the public, that

it's okay to have a multiskilled worker providing for you as a patient and as a family member."

Participants in the study identified key issues related to their allied health colleges and role in a changing health care delivery system. These issues included the preparation of allied health graduates to meet the demands of a changing health care environment by offering an innovative curriculum that focuses on the development of competent and multiskilled practitioners.

The cost of allied health education programs

With increasing financial and budgetary concerns, allied health colleges need to address the financial security and future viability of their allied health programs. Nursing and allied health education programs are perceived by educational planners and hospital administrators to be high-cost programs. The reality is that allied health education is faculty intensive, it necessitates clinical education experiences requiring coordination and supervision, and it involves extensive laboratory and space requirements. Thus, under the current plan to control and reduce hospital costs, these hospitals, in turn, feel an increasing pressure to reassess their educational programs. Consequently, allied health colleges are facing increasing pressures to reduce the cost of their educational programs and overall institutional budgets.

Presidents representing colleges that received federal funding expressed concern over possible federal budget cuts that could have significant negative implications for the quality of their allied health programs. They believed that administrators of allied health programs

will continue to experience pressure to reduce costs which will require setting priorities between and among programs. This, of course, will have significant implications for curriculum content, facility and equipment requirements, faculty competency, student recruitment, and probably most important, clinical affiliations. Colleges of health sciences will need to find new and more cost effective approaches to educating their students as the financial support for nursing and allied health programs diminishes under the new system of health care delivery.

As the result of the federal and state governments seeking new reform for the financing and reimbursement of health care, presidents interviewed for this study were considering the serious impact of these for their allied health colleges with respect to recruitment, education, and practice patterns of health professionals. This financial reality is noted in the following observation in which President A states: "Our concerns for the future are going to be primarily financial and making sure that there is adequate funding. We are in the wrong education, when it comes to being cost effective."

President D, identified one of his greatest challenges as an administrator was funding his growing institution for the future:

One of our greatest issues is the financial challenges of a growing institution. It's a challenge to add good staff, provide new programs and have enough space. Where do we get the dollars to make this institution more than what it is today? The only way to do that is to raise significant foundation dollars for the institution, so that we can continue to grow and maintain our financial viability.

As alternatives to the traditional means of federal funding through government programs, allied health colleges will need to look outside of traditional resources, as explained by President A:

As allied health institutions, we need to be looking at ways to off-set our bottom line while staying within our mission. For example, we need to consider non-nursing and non-allied health programs and yet, stay in related health care areas that will sustain our mission. As long as we know what is our mission, I think we can be successful.

Potential loss of federal funding support for allied health programs

A consistent and pervasive theme noted throughout the presidential interviews centered on the potential loss of Medicare pass-through funding for hospital-related allied health colleges. The Medicare pass-through funding program, initiated by the federal government in 1965, was intended to encourage and support the training of allied health professionals in order to meet the health care needs of Medicare beneficiaries. As a result, Medicare pass-through funding has become a critical funding source for allied health colleges. At the time of this study, the 1997 Balanced Budget Act of the U.S. Congress poses a significant threat to the continued federal support of hospital-related education and training programs.

The impending loss of Medicare pass-through funding support, combined with managed health care program penetration, will significantly reduce the level of reimbursement that allied health colleges receive for educational programs in nursing and allied health. President B described this situation as follows:

One of the dangers that I foresee is that as hospitals begin to be pinched for more dollars and our Medicare dollars begin to shrink is that some of our allied health colleges will go out of business. Because these entities will decide that with Medicare dollars evaporating and not enough dollars to go around . . . "we will just cut our allied health programs and let someone else do the education for us." It behooves our allied health institutions to make themselves indispensable.

In response to this impending threat of federal funding cuts, President D described his efforts to strategically position his college and allied health programs for future financial viability:

I believe we must find ways to support ourselves financially. One way is good financial planning so that when Medicare funding does go away, we have other sources of funding. Secondly, we must make ourselves indispensable to the system, by creating the kind of product, both culturally and academically that they want and desire. That's how we can avoid the problem of continued shrinking Medicare dollars.

Clearly a strong theme that emerged from the interviews was the expressed concern by the college presidents regarding the financial viability and future survival of their allied health colleges. Each president stressed that the changes in the health care environment could have a profound and enduring impact on the future of their nursing and allied health programs.

The Unique Role of Hospital-Related Allied Health Colleges in Health Care and Higher Education

The unique role of hospital-based allied health college emerged as a significant theme throughout the interviews. Throughout the study, college presidents identified a number of unique contributions in defining their college's role in relation to health care and higher education. Key points regarding hospital-related allied health colleges addressed in this section include: (a) the college's role in providing a valued education to students, (b) their role as an important resource in meeting the needs of communities and contributing to the health care workforce, and (c) the unique medical center-college partnership that characterizes these programs and enhances their ability to respond to an ever-changing health care delivery system.

Defining the role of allied health colleges in higher education has been an important challenge according to the presidents interviewed for this study. This challenge has been partly due to the relatively recent establishment of these colleges in the higher education sector. President F reflected on the history and development of her hospital-based health sciences college:

The first thing that we learned in establishing our college is that we were truly establishing a brand new type of collegiate institution. One that had not existed before. We were establishing a brand new college that in its own right was not a division or department of the hospital as we would typically see on a hospital organizational chart.

Providing a valued and innovative education

A noted theme that emerged from the interviews was the identified role of hospital-related colleges in providing a valued educational service to their students while, at the same time, responding to the health care workforce needs of their respective communities. President E summarized this effort:

Our emphasis is on preparing students by presenting them with a curriculum that's going to prepare them for a future. One of our stipulations, for any of our new programs is that it must be a program where students can get jobs as graduates and they have a reasonable expectation that they can pursue some kind of advance preparation following their initial education program.

Inherent in the president's discussion of the role and mission of their allied health colleges was this commitment to students to prepare them for future jobs in health care. President C described her college's position in assuring students that they will receive the skills to insure their marketability upon graduation:

Our curricula must be flexible and yet stable enough so that our graduates can go out and get a job. It's exciting that as educators, we're on the cutting edge, by producing people that are needed for future health care. As educators, we can then say,

"this is the education that you need and will use in your health care profession."

President E observed that allied health colleges have a distinct advantage over other colleges in addressing public concerns and questions related to educational accountability. She stated:

In recent years, the public has asked serious questions such as "what are we getting for our money and why can't these people get jobs?" Our allied health colleges have the advantages of vocational education where graduates can do something with their education. One hallmark of our educational programs is that we're in the business of preparing people to work and what we're doing makes sense to the public.

Contributing to the workforce needs of communities

Hospital-related allied health colleges are in a unique position to recognize and respond to the health care needs of their respective communities. This was a consistent theme throughout the interviews, as the college presidents spoke of their college's responsibility to meet the demands of a changing health care system within their communities and to educate adequate numbers of qualified health care professionals.

President C described this unique role as "one of our major challenges and opportunities as health science colleges; to prepare health care providers to meet the needs of society." However, in contributing the workforce of their communities, she related that allied health educators must "be able to identify the skills that will be required in future health care providers which will define their professional scope of practice." President D concurred that allied health colleges "are in a unique position to be responsive to the needs and expectations of the market place and society as a whole." With respect to this role, he noted that "we need to re-evaluate our nursing

and allied health programs within the expectations of what the market place demands." Within in this same context, President C noted:

Our health care system has challenged us, by saying "if you're not here to meet our needs, then how are you going to exist in five years?" The basis of survival for our college is to meet the challenge of the future needs of the health care system and at the same time, deliver the kind of educational services that students need now.

Hospital-related colleges and medical center partnerships

College presidents interviewed for this study identified a number of advantages of being affiliated with a medical center or health care system. The study participants noted that a close alignment with the health care marketplace proved to be a significant factor for the colleges with respect to understanding health care issues, responding to changing health care demands, and improving and coordinating patient services within their communities. Describing the allied health college-medical center partnerships as mutually beneficial, the presidents identified that these partnerships afforded both health care administrators and college educators a first-hand understanding of market trends, an opportunity to share and communicate information across the professions, and to respond quickly to changes in the health care system. Recent changes in the allied health colleges curricula and the response of colleges to meet the human resource needs of their respective health care systems characterized this partnership. President D described the benefits of this relationship:

Because of our connections with the medical centers, we are in an ideal position to know what the market trends are and what we need to do to maintain our market responsiveness. By maintaining this relationship, we definitely have an advantage over institutions in higher education who don't have this partnership or have removed themselves from this type of association.

President G also stressed the importance of a strong collaborative relationship between allied health colleges and medical centers. Observing that a close working relationship supports the colleges' efforts in responding to the marketplace demands of a changing health care environment, he stated:

Our ties with our medical center are very close. We constantly talk about the health care product that they need and the product that we are providing. This relationship is a unique strength for us as health science colleges. Colleges that don't have this relationship have greater difficulty in educating health care workers.

By responding promptly to the health care needs of their communities, allied health educators are playing an important role in the redesign of and restructuring of the changing health care environment. President C described the importance of this role as colleges and medical centers work together to create a qualified allied health workforce: "Working together, we can be responsive and willing to change as quickly and as frequently as possible in order to produce the product that the health care system is going to require to deliver the needed health care services."

With respect to meeting the needs of the emerging workforce, allied health colleges must provide health care providers who are flexible and who have skills, competencies, values, and attitudes necessary to work in a reforming system (Zemsky & Oedel, 1992). The presence of a managed health care system places additional demands on health care practitioners to work competently in a variety of health care environments such as acute care, ambulatory, clinics, and home health settings. The focus of their education must prepare them as

health care practitioners to focus on primary care, prevention, and health promotion for an increasingly diverse population.

Leadership Characteristics of the Allied Health College President

Leadership is a key element in any organization. As the research study progressed, a significant theme emerged regarding the role of the college presidents as they faced difficult challenges involving change. It was noted that each of these presidents had a strong sense of commitment to the success of his or her college and that each president had been instrumental in the establishment of their respective allied health colleges as successful degree-granting programs. This third section of Chapter 4 discusses the characteristics that the college presidents identified as contributing to their leadership and the success of their respective colleges.

Ability to adapt to environmental change

Each president in the study identified the need to address anticipated change and to deal with it effectively. The presidents had not only dealt with experiences of change in the past but they were currently responding to external environmental forces associated with a changing health care system and its impact on their educational programs. Identifying the need for effective management of their programs, the presidents conveyed a sense of identifying and dealing with anticipated changes "head on."

According to President H, a leader has the responsibility and obligation to "make it happen." In sharing her experience, she related

that her leadership role evolved as a result of "being placed in the position" which resulted in the development of leadership abilities.

Once you're in a position and you know what needs to happen, then it's your responsibility to see that things do happen and you have to develop those abilities. At first, I wouldn't have been someone who would go and argue at the state level for the changes and the types of things that we needed, but that's what was needed and you have to see the changes through.

The literature reports that one of the most difficult challenges for future allied health programs will be their "capacity to deal effectively with unanticipated changes—a problem apparently endemic to the health professions but one that is particularly acute within the allied health arena" (National Commission, 1995, p. 71). However, this did not appear to be the perception of the allied health college presidents interviewed for this study. In general, the presidents conveyed a positive sense of being "in touch" and "knowledgeable" of current and impending changes in the health care environment as well as higher education.

Overcoming barriers to change

Barriers were a common theme among the experiences shared by the college presidents. These barriers appeared to be decision points for making needed changes. By overcoming barriers, the presidents appeared to advance their respective colleges in terms of their college's educational goals and mission. Six of the nine presidents identified the characteristic of "tenacity" and "persistence" as a key factor in successfully negotiating needed changes within and outside of their educational institutions. President E described her leadership experience while encountering barriers and resistance to change:

In dealing with change, you have to be able to deal with a kind of rigidity in the process. These are political obstacles that are put in the way and reflect the resistance of others in terms of change. You really have to de-ego yourself. You've got to be the person who says to the group, "let's look at some strategies to see if we can move."

According to President H, the transition of her College of Health Sciences was a difficult and challenging one with a number of barriers to the change process at the local and state levels of government. In her shared experience during an interview, she refers to the need to be a catalyst and persevere in the face of needed change:

In many ways, I was probably the catalyst that made it happen. In addition, though, it was the perseverance--to keep pushing to make it to happen and you had to keep pushing. At some points, there were so many more barriers to work with, because people just didn't really see why you needed to change. However, once the changes were made for the college, then people began to realize what we had really accomplished.

Other presidents identified a combination of the leadership traits with previous experience. President C noted that her previous experiences were helpful in the administration of her College of Health Sciences:

Personally, I think my persistence was probably the strongest thing that carried our changes through. My educational background and experiences with accreditation agencies also helped. But it was developing an open mind to change and being futuristic by looking at avenues that we should pursue.

President C summarized that being tenacious under adversity is most important, however, it is important to know when to move beyond the change process. She states, "as leaders we must have the ability to stay on the path and then move away and let go."

The role of vision and communicating the vision

In order to address the forces of change, the role of vision is a powerful tool for thinking about the future. And for an organization to

integrate effectively, a strategy must flow from its vision and purpose. A number of contemporary writers have identified the importance of vision as a major leadership characteristic in successful organizations. Tichy and Devanna (1986), identified that a primary leadership goal is to articulate a new vision of where the organization is to go in the future. Tichy and Devanna (1986) described this transformational process as one in which the leader recognizes the need for revitalization; creates a new vision; and results in institutional change. Hickman and Silva (1984) also identified the importance of vision as "creating the future." In 1989, Bennis reported on his study of 90 top leaders who shared a common trait--a compelling vision about their work.

Bennis and Nanus (1985) argue that one trait all good leaders have is the ability to "manage meaning" by articulating their visions through metaphors and imagery. This form of communication provides visible and constant reminders of key aspects of the leaders' visions. College presidents who initiate this form of spontaneous communication help to solidify their vision for their colleges and heighten the consciousness of the meaning of their vision within their staff and faculty. This communication of vision is expressed in the following excerpt, from an interview with President D regarding the importance of communicating his vision as a top priority. President D related:

I have a vision for this institution. It's what I want this institution to be in 15 years from now, even if I might not be here. I constantly keep that vision for the institution before my faculty and staff. I talk about it with them and I endeavor to model it with them. So my real job is not so much doing the nitty gritty things that need to be done day by day, but my major role and responsibility is to be the visionary of the institution and provide the opportunity for people to achieve and make that happen.

In many ways, President D exemplified what Tichy and Devanna (1986, p. 152) identified as the three-stage approach to communicating vision: (a) demonstrating one's commitment to the vision, (b) having effective two-way communication, and (c) getting people signed onto the mission, by seeking employee participation and involvement in the process. This ability to communicate a vision in a way that makes it attainable was a characteristic consistently noted in the allied health college presidents. In communicating his vision, President D identified his leadership strategy: "I have deliberately chosen people with strong personalities and leadership skills to participate in important roles in his institution and to convey the responsibility of carrying out my vision."

President G noted that a combination of previous leadership experiences provided the background and opportunity to articulate his vision for building a new college. He related that his years of experience in higher education have contributed to his success in leading his allied health college through the necessary steps to becoming a successful degree-granting institution of higher education.

My higher education experience of 35 years at a major public university; as a chancellor at a two-year college; and as a consultant to over 200 universities in the country throughout my career. This experience combined with a vision for the college and an opportunity to build a college that can be the very best it can be--that's what I've brought as a leader.

According to the 1995 Pew Commission, tomorrow's leaders in allied health education must stay informed, be proactive rather than just reactive, and see and create opportunities, if they and their programs are to remain relevant, survive, and assume a leadership position in meeting the health care needs of society. It is important that

educational leaders in allied health be knowledgeable about the changes that lie ahead for them. To do otherwise may seriously jeopardize the effectiveness of the nation's overall health care system.

The Pew Commission Report (1995) states,

In order to establish a flexible education system for advancing the education of allied health professionals to meet the needs of an emerging health care system, there is an urgent need for allied health education leaders who are visionary, open to new ideas, models and alternative approaches to preparing allied health personnel for the future. (Pew, 1995, p. 17)

Summary of leadership characteristics

In summary, the presidential leaders participating in this study were deeply committed to the success of their allied health colleges. They acknowledged the changing health care delivery system and embraced the need for change as leaders for their respective colleges. Throughout the interviews, the college presidents identified a number of leadership characteristics, experiences, and backgrounds that they contributed to their ability to negotiate change in their health care environments. Leadership traits that the college presidents identified as critical to the success of their colleges included: (a) the ability to focus on priorities with tenacity and persistence in overcoming obstacles and barriers to the change process, and (b) the ability to create a vision for their colleges with a shared understanding and sense of identity that united people in pursuit of relevant challenges.

Summary

The purpose of this qualitative study was to investigate and identify the role of hospital-related allied health colleges in health care and higher education. The data that was gathered for this study

resulted from research questions that were identified and evolved from the qualitative research process. Tape recorded interviews with nine allied health college presidents provided the data base that emerged as three major areas of focus in Chapter 4. Summarized, these major areas included (a) changes in the health care environment and the resulting impact on allied health education and colleges of health science, (b) the unique role of allied health colleges in health care and higher education, and (c) the leadership role of allied health presidents and the leadership characteristics they identified as critical to the success of their respective allied health colleges. Chapter 5 of this study provides the summary, conclusions, and recommendations for these research findings.

CHAPTER 5
SUMMARY, FINDINGS, RECOMMENDATIONS AND CONCLUSIONS

Introduction

Chapter 5 provides a summary of the research findings and includes a discussion of the significance, possible meaning, and implications of the study. From the number of findings associated with this study, recommendations are identified for further research involving allied health education and hospital-related health science colleges. Limitations of the study are discussed and conclusions are provided for the research study.

Summary of the Study

A review of the literature revealed essentially no documentation on hospital-related colleges of nursing and allied health and thus the need was substantiated to investigate these institutions with respect to the following: (a) the impact of a changing health care environment on allied health education, (b) issues confronting allied health colleges, (c) the role of allied health colleges in health care and higher education, and (d) the leadership role and characteristics of allied health presidents. By nature, this qualitative study would identify, analyze, and report research findings and provide recommendations regarding these institutions to an audience of health care providers, hospital administrators, and the broader higher education community.

Because of the lack of any previously identified research in this area, a research methodology that would elicit the expert opinions of nine allied health college presidents was selected. Thus, a qualitative research process was identified as the research technique most appropriate for developing expert insight into the current issues and roles of allied health colleges in response to a changing health care environment.

A review of organizational development literature provided a theoretical framework for the study. Models were selected that could be applied specifically to the development and role of allied health colleges in response to environmental changes in health care. The theoretical foundation for the study was based on the work of organizational development researchers (Cameron & Whetten, 1983; Kimberly & Miles, 1980; Miller & Friesen, 1980) who had identified a theoretical basis for institutions of higher education undergoing change in response to external forces.

Other researchers (Child, 1984; Miles & Snow, 1978; Pearce & Robinson, 1982) discussed the importance of an organization's strategic choices in helping to define a college's relationship within its broader external environment. Thus, the organizational development literature, which recognizes the relationship of environmental change to the development and life cycle of institutions of higher education, was incorporated into the framework of the study and provided the theoretical foundation to investigate the research objectives.

Throughout the research approach, qualitative procedures were applied to assure trustworthiness and reduce subjectivity in the research process. Internal validity was sought by utilizing multiple

sources of data, triangulation, and validation by the study participants. Construct validity was determined by having two individuals--an educator with expertise in research and design, and a tenured professor from a hospital-related allied health college--review the study for accuracy and completeness. The research process also incorporated member checks by the research participants who reviewed and validated their interviews and descriptions. According to Yin (1989), the use of member checks is a major way of improving the quality of the study and assuring that construct validity is provided.

External validity was enhanced by the generalization of the organizational development literature that provided the theoretical foundation for the organizational development of institutions of higher education in response to environmental changes. Reliability was assured by the use of a data base of extensive recorded interviews and informal conversations. To a lesser degree, supporting college records and documents, that included college catalogs, student handbooks, published college policies, accreditation reports, and other archival records were accessed and integrated into the research report.

Purpose of the study

The purpose of this qualitative study was to investigate and identify the role of hospital-related allied health colleges in response to a changing health care environment. Specifically, the study explored how changes in the health care environment have impacted hospital-related education, major issues of allied health colleges have experienced as part of a changing health care environment, the role these institutions fulfill in educating health care professionals and

the characteristics identified by allied health college presidents as significant to the successful transition and growth of these institutions. In addition to the stated purpose, an expected outcome of this study was to contribute information and research findings regarding hospital-related allied health colleges to the allied health and higher education literature.

Research questions

As a result of a review of the literature and the qualitative research process, four research questions were developed to guide this study:

1. What impact have the changes in the health care delivery system had on hospital-related allied health colleges?
2. What issues have hospital-related colleges experienced in response to these changes?
3. In preparing qualified health care professionals for the future, what is the role of allied health colleges in health care and higher education?
4. As a college president, what leadership characteristics are critical to the success of an educational institution in responding to a changing health care environment?

Summary of the findings

One of the primary objectives of this research study was to identify major issues of allied health colleges in response to a changing health care environment. Findings indicated a number of issues that could be identified for the allied health colleges represented in this study. These issues were identified by the study participants who

served as the administrative representatives for their allied health colleges. Findings from this research study are summarized as follows:

1. One of the major developments in the nation's health care system has been the emergence of managed health care programs as an effort to improve the quality of health care while containing health care costs.
2. Allied health education will have a significant role in educating a qualified health care workforce for the future in response to these widespread health care changes.
3. Recognizing the emerging health care system and the implications for a qualified health care workforce, allied health colleges are exploring innovative learning methods and redesigning their curricula to reflect new educational competencies and programs for multiskilled health care practitioners.
4. As a result of changes in the health care delivery system and the emphasis on controlling health care costs by the federal government, allied health college administrators are anticipating a significant reduction in government funding support for their hospital-related nursing and allied health educational programs.
5. Hospital-related colleges are well positioned to recognize and respond to the health care needs of their communities (and society, in general) by providing qualified graduates to meet current and future workforce demands.
6. Allied health college presidents expressed the necessity to be responsive to the student's need for a valued education, by

providing responsive and innovative curricula that reflects the ever changing health care delivery system.

7. Allied health college presidents have overcome significant barriers in response to environmental change by identifying the ability to (a) adapt to environmental change, and (b) the ability to focus on positive change by sharing a vision for the future as critical characteristics in facilitating their college's response to a changing health care delivery system.

Limitations of the Study

This study was limited by the following conditions.

1. The study, by nature, was limited to nine research participants representing nine different allied health colleges in the United States. It is possible that a research study and analysis based on additional respondents and/or different allied health colleges might yield different findings.

2. As in all studies, bias must be considered in this methodology. One must consider that different information and conclusions might have been acquired by another researcher in this process.

3. One must consider that the use of multiple sites in this qualitative research may have led to data reduction toward standardization and an ease of comparison at the possible expense of potentially meaningful specific detail that one selected study site may have better provided.

4. Perhaps the study would have benefited from a long-term immersion into a single collegiate site rather than acquiring a broader

understanding of multiple sites that received less time per site in the data collection phase of the study.

Implications of the Findings

The following section provides a detailed summary of the research objectives and study findings.

Impact of health care changes

Allied health colleges have not been immune to the impact of health care changes. Forces such as reduced government spending, increased cost containment, and the growth of managed care programs in the health care sector have had a dramatic impact on the health care delivery system in the United States and a significant impact on hospital-related allied health colleges and the education of health care professionals.

Managing these changes appeared to be one of the greatest challenges for the presidents of allied health colleges. In fact, changes in the health care environment appeared to provide a catalyst for the presidents to examine such critical issues as mission, culture, finance, and efficiency as well as the role of their colleges in providing allied health education. In response to changes in the health care system, allied health college presidents reported that they were seeking new and creative ways of adapting their programs to these changes. Central to this development were administrative efforts of the presidents to improve the efficiency, operations, and financial management of their allied health colleges.

The refocusing and reaffirming of each of the allied health colleges' missions was noted in their exploration of learning methods and opportunities to redesign their curricula to become more innovative and strategic to changing educational needs. As a result, the beginning ideas and insights described in this study, may evolve into new models for allied health colleges and for other institutions to follow in the future. Certainly, this study will help to recognize the impact of environmental health care changes on allied health education which will, in turn, focus allied health educators on preparing health care professionals for the future.

Curricula changes

Studies such as this one may provide additional information for curricular change, to include new educational competencies. As the roles and responsibilities of allied health professions change, allied health educators are emphasizing new competencies and skills in their curriculum such as critical thinking, problem solving, decision-making, communicating effectively, self-learning, and locating and using information. These new competencies are critical for allied health students to enable them as health care practitioners to respond to the complex nature of the emerging health care environment. (Association of Academic Health Centers, 1996).

Impact of the federal government on allied health education

A noted outcome of this study was not only the identification of the dramatic impact of the changing health care environment on allied health education but the complex and strong economic and political forces. These forces have underlying financial implications that may

threaten allied health colleges, their educational missions, and ultimately, the survival of allied health colleges into the 21st century. The federal leadership of our country must be informed regarding its policy decisions and consequential impact on the development of a future health care workforce.

The role of the allied health college presidents

A noted characteristic of the college presidents who participated in this study was that each identified the ability to acknowledge and embrace change. In addition, college presidents emphasized the importance of having a vision in order to successfully prepare and lead their colleges. Consistent with organizational development theory, this information may assist others in identifying approaches to strategic planning for successful institutions to enhance the viability of their colleges while remaining responsive to the missions of their programs in a changing health care environment.

Recommendations for Future Study and Research

A number of recommendations can be drawn from the findings of this study. The analysis of the findings of this study may provide a base of knowledge for other allied health colleges and educational institutions providing allied health education. Hopefully, the knowledge gained may be of value as allied health colleges strive to change and become more effective and responsive organizations. In summary, this study provides specific recommendations for further study:

1. The history, organizational development and future of a hospital-related allied health college involves a unique interface of

allied health education and the health care delivery system. Research could be further conducted into the role, contributions and mission of these developing institutions.

2. Research should be conducted into the development of these emerging colleges of allied health to determine if there is a design model that would serve as a benchmark institution for other hospital-related allied health colleges undergoing development and transition as institutions of higher education.

3. Research should be conducted into other educational issues associated with hospital-related allied health colleges to determine if issues identified by these colleges can be generalized to other institutions of higher education, for example, allied health programs in university and community college settings.

4. A study should compare personal, educational, and professional development of allied health students in comprehensive university based programs with the personal, educational, and professional development of allied health students in specialized institutions of higher education.

5. Research into the administrative leadership of hospital-related colleges should be conducted, centered on the roles and responsibilities of the allied health college president. Further research could define the formal administrative structure of these colleges so as to identify and promote a more effective, efficient operation of the organization.

6. Further research is needed in identifying the current and future implications of the changing health care environment, the effect of federal financial support on hospital-related or specialized allied health colleges, and the potential loss of this funding support in the future. In response to these impending changes, the education, role, and

availability of health care providers over the next 10 years needs further study.

7. The unique role of hospital-related allied health colleges should be further studied with respect to their mission, organizational structure and development and their contributions to their respective communities and health care environments.

8. Finally, further information and resources are needed for guiding new and developing allied health colleges in the higher education field. The unique role of these allied health colleges should be studied to further understand their impact on their respective communities and health care systems.

Conclusions

This qualitative study was intended to contribute to a better understanding of hospital-related allied health colleges in health care and higher education. This qualitative study provided an additional knowledge base of information for these colleges as they respond to a changing health care environment. At the time of this writing, there was limited research on these institutions. Continued application of the organizational development theory to new and developing allied health colleges, as well as continued identification of the issues that emerged from this study, appear worthy of further study.

In conclusion, Thomas D. Hatch (1988), Director of the Health and Human Services Administration, Bureau of Health Professions, in the Sixth Report to the President and Congress on the Status of Health Personnel in the United States, summarized the need for qualified health care professionals for the future and the challenges of the changing

health care environment. In his address to the United States Congress on the status of health care in the Nation, Senator Hatch concluded:

Finally, while there will be many problems, I believe there will also be new opportunities. Newly developing systems and approaches to delivering health services, not bound by traditions and hierarchies of the past, can stimulate approaches to providing services in the most effective way from both a cost and quality standpoint. There are new and promising horizons in technology and diversity of opportunity. Most of all, the system will continue to need talented, dedicated and caring professionals. (ED 278 787 Thomas D. Hatch, 1988, U.S. Department of Health and Human Services)

APPENDIX A

LETTER TO RESEARCH PARTICIPANTS

IOWA STATE UNIVERSITY

College of Education
Professional Studies
N243 Lagomarcino Hall
Ames, Iowa 50011-3190
515 294-4143

LETTER TO RESEARCH PARTICIPANTS

October 31, 1996

Dear Colleague:

I am writing to explore your willingness to participate in a qualitative research study which focuses on the emergence and development of Allied Health Colleges throughout the United States. Through this research, I hope to learn more about allied health colleges and in the process, gain further insight the impact of health care changes on allied health education, current issues and trends, and the role of hospital based Colleges of Health Sciences in higher education. In addition, the study will help fulfill the dissertation requirement for my doctoral program in Professional Studies in Higher Education at Iowa State University.

The data collection for this study will be accomplished through interviews. I would ask you to participate in a minimum of two interviews - each lasting approximately thirty minutes in length. The interviews will be taped recorded and will provide the basis for my qualitative research study.

As a part of the qualitative research process, I will ask you to review your individual transcripts and provide feedback regarding my interpretation of the interview content and meaning. Transcripts will be kept strictly confidential and all names, locations and organizations will receive pseudonyms for purposes of anonymity. A copy of the study participant consent form is attached for your review.

Thank you for your consideration of this request. If you would like further information or have questions regarding my request, please feel free to contact me at Mercy College of Health Sciences (515-247-3180). I look forward to your participation and of course, will keep you informed of my findings.

Sincerely,

Deanne M. Remer
Ph.D Candidate
Iowa State University

Dr. Daniel C. Robinson
Major Professor
Professional Studies in Higher Education

APPENDIX B
PARTICIPANT CONSENT FORM

IOWA STATE UNIVERSITY

College of Education
Professional Studies
N243 Lagomarcino Hall
Ames, Iowa 50011-3190
515 294-4143

PARTICIPANT CONSENT FORM

Thank you for agreeing to participate in this research study. The purposes of this project are (1) to gain an understanding of your professional role in the emergence and development of a College of Allied Health and (2) to satisfy the researcher's dissertation requirement in the Department of Professional Studies of Higher Education, Ph.D. Degree Program at Iowa State University, Ames, Iowa.

As a participant in this study, you will be interviewed. These interviews will be tape recorded, transcribed and used as the basis of the researcher's qualitative research study. The following are the terms for participating in this study:

1. The information obtained during the taped interview sessions of this study will be used as qualitative research data for the development of the dissertation project. In addition to the researcher and the respondent, other individuals who may have access to this information would include a secretarial transcriber, a peer reviewer of the researcher and the researcher's faculty advisor(s) in the development of the dissertation. Information obtained from the taped interviews will not be disseminated to others without the written consent of the respondent.
2. For purposes of confidentiality, real names (persons, places and institutions) will not be used during the transcription of data collected from the interviews nor in the actual dissertation.
3. The respondent will receive a copy of transcriptions obtained from the interviews and will have the opportunity to negotiate changes with the researcher before the final draft of the dissertation is submitted.
4. The respondent has the right to withdraw at any time from the study, for any reason, and the research data (transcriptions and tapes) will be returned to the respondent upon request.
5. The respondent will receive a copy of the completed dissertation.

If you agree to participate in this research study according to the preceding terms, please sign below. Also, please indicate if you (do/do not) grant permission to be quoted directly in the research study report.

Respondent: _____

Address: _____

Telephone: _____

I agree to conduct this research according to the preceding terms.

Researcher: _____ Date: _____
Deanne M. Remer

APPENDIX C
DESCRIPTION OF PARTICIPATING ALLIED HEALTH
HOSPITAL-RELATED COLLEGES

The following information provides an overview of the history, programs, and mission statements of the eight Colleges of Health Sciences which the college presidents that participated in this research study represented. The following information was obtained from an analysis of available documents (college catalogs, viewbooks, brochures, student handbooks) from each of the colleges.

Cabarrus College of Health Sciences

Cabarrus College began as Cabarrus County Hospital, a three-year hospital-based diploma school of nursing in 1942. In 1973, the Cabarrus Memorial Hospital Board of Trustees and the North Carolina Board of Nursing approved the first 2-year hospital diploma program in North Carolina. In 1989, students who completed the school's nursing education program were awarded an Associate in Science Degree as well as a Diploma in Nursing. In January 1995, the school received accreditation from the Commission on Colleges of the Southern Association of Colleges and Schools to award the associate degree. As a result, the school now awards its graduate the Associate of Science Degree in Nursing. Cabarrus College is the first hospital-based college in North Carolina to achieve regional accreditation by the Southern Association of Colleges and Schools.

The mission of Cabarrus College of Health Sciences is to provide qualified men and women from Cabarrus and surrounding counties with health sciences educational experiences which will result in their developing the knowledge, attitudes, and competencies to function as informed responsible citizens and to serve their communities as beginning practitioners in their chosen health profession.

(Adapted from: *Cabarrus College of Health Sciences 1996-1997 Catalog*).

Carolinas College of Health Sciences

In the late 1980s, the Charlotte-Mecklenburg Hospital Authority (CMHA) administration, recognizing the need for a school, established the Charlotte-Mecklenburg Hospital Authority School of Nursing. The school obtained degree-granting authority and graduated its first class of associate degree nursing students in 1992. The school was accredited by the Commission on Colleges of the Southern Association of Colleges and Schools (SACS) and began doing business as Carolinas College of Health Sciences in July, 1996.

Carolinas College of Health Sciences is a single purpose institution of higher education offering the Associate in Applied Science Degree. The college is committed to educating healthcare providers who have a foundation in general education that supports communication, analytical and reasoning abilities, and a holistic approach to the bio-psycho-social-cultural person. The college is also committed to providing the student with services and resources for success in beginning a lifelong learning process.

(Adapted from: *Carolina College of Health Sciences Catalog/Student Handbook 1996-97*).

Florida Hospital College of Health Sciences

Florida Hospital College of Health Sciences (FHCHS), a Seventh-day Adventist institution owned by Florida Hospital, specializes in allied health and nursing education. Consistent with the mission of its parent institution, FHCHS provides an environment where students can develop spiritually, intellectually, socially, and physically while pursuing professional expertise integrated with Christian values.

Florida Hospital College of Health Sciences opened its doors in 1992 as a two-year degree-granting institution. Its history dates back to 1913 as a hospital-based nursing program. In 1958, the Southern Missionary College of Seventh-day Adventists began sending its nursing students to Florida Hospital for a clinical nursing experience. Florida Hospital offers radiology education dating back to 1962; sonography education since 1989 and radiation therapy since 1992.

FHCHS is a two-year institution offering associate degrees and certificate programs in a variety of health-related careers. The college and faculty are committed to excellence in providing Florida Hospital and similar institutions with competent professional who have an understanding of the beliefs, values, and principles of the Judeo-Christian tradition.

(Adapted from: *Florida College of Health Sciences 1996-1997 Academic Bulletin*).

Kettering College of Medical Arts

Kettering College of Medical Arts, is a coeducational, two-year college, owned and administered by the Seventh-day Adventist Church. Kettering College first opened its doors in 1967, and the state charter granted in 1968 empowered the College, as the educational component of Kettering Medical Center to conduct instruction in the arts, sciences, and allied health professions.

The historic pattern of education in medical institutions has been one of apprenticeship, in-service training, and service-oriented lectures. Over the years, however, the strength of academic methods, organization, and presentation of instruction in allied health and nursing curricula has been effectively demonstrated. Thus it was determined by the founders that the educational purpose of the medical center should be served by the establishment of an academic institution offering curricula in a variety of hospital and health careers, as well as general education.

By 1995, the college was serving the educational needs of 600 students working toward two-year associate in allied health degrees to include nursing, radiologic sciences, and images (radiologic technology, special procedures technology, nuclear medicine, and medical sonography), respiratory care, physician assistant, and biomedical electronics. As an integral part of Kettering Medical Center, Kettering College of Medical Arts is dedicated to providing quality education for students through competent, dedicated faculty and staff, and a commitment to clinical and educational excellence which integrates Christian principles and values in a distinctively spiritual environment.

Kettering College of Medical Arts is accredited by the North Central Association of Colleges and Schools. Its degrees are authorized by the Ohio Board of Regents, and its academic credits are acceptable for transfer to most colleges and universities.

(Adapted from: *Kettering College of Medical Arts 1996-97 Academic Bulletin*).

Lutheran College of Health Professions

Lutheran College of Health Professions was founded in 1987 to prepare men and women for careers in health care. As a part of the Lutheran Foundation, Lutheran College offers a unique environment that attracts students from northeast Indiana and northwest Ohio. Nearly 650 students are enrolled in the nursing and allied health programs that include associate degrees in Emergency Medical Services, Nursing, Occupational Therapy Assistant, Physical Therapist Assistant, Radiologic Technology, and Surgical Technology. Bachelor degree programs include nursing and physician assistant. Lutheran College is accredited by the Commission on Institutions of Higher Education of the North Central Association of Colleges and Schools.

The mission of Lutheran College as a Christian institution is dedicated to preparing men and women for careers in health care. In striving to fulfill its mission Lutheran College has made a commitment to: (a) prepare students for selected health care careers by offering programs leading to academic degrees and technical certificates; (b) provide coherent general education opportunities that provide a basis for successful career preparation, a broadened understanding of life, and enhanced ability to function effectively in society; (c) provide educational opportunities and resources that will facilitate student achievement of academic excellence and clinical competence with emphasis on the art of human caring; (d) provide students a wholesome, intellectually stimulating environment in which caring and respect for all individuals is evident; (e) provide a program of continuing education to enable individuals to further develop abilities, skills and interest, preparing them to be of greater service in their particular health care professions.

(Adapted from: *Lutheran College of Health Professions 1996-96 Catalog*).

Mercy College of Northwest Ohio

Mercy College of Northwest Ohio, sponsored by the Religious Sisters of Mercy, is a Catholic non-profit institution of higher education. It was incorporated in December 1992 and began its associate degree nursing program in January 1993, an associate of applied science degree in pharmacy technology in the fall of 1995, and health information management and medical laboratory technology programs in the fall of 1997. Educating individuals in health careers is not new to Mercy. A diploma nursing program had existed since 1917 when the Sisters of mercy founded the Mercy School of Nursing.

The diploma program established a tradition of excellence in nursing education, graduating nearly 3,000 students in its 77-year history. The college also provides continuing education offerings, non-credit courses, and other community services to enable individuals to develop knowledge, skills, and interests in nursing and health care. The college promotes the integration of technical and general studies as a basis for successful career preparation. Correlation of theoretical and experiential learning is emphasized.

Mercy College of Northwest Ohio continues this tradition of educating individuals for a health care career through its focus on academic excellence and clinical expertise in a small, friendly, Christian environment. Mercy College prepares students for careers in a changing health care environment. Graduates of all programs are prepared for both immediate entry into their chosen field and for further study.

(Adapted from: *Mercy College of Northwest Ohio 1996 brochure and College Catalog*).

Our Lady of the Lake College of Nursing and Allied Health

Our Lady of the Lake has evolved from the foundation of excellence provided by the Our Lady of the Lake Diploma School of Nursing. In 1923 the Franciscan Missionaries of the Our Lady established Our Lady of the Lake School of Nursing in downtown Baton Rouge. The school was an integral part of the new hospital's program of service to the community. Over the years, the curriculum was revised to incorporate advances in medical science, nursing science, nursing practice, and nursing education. The college is committed to upholding the standard of excellence established by the diploma school and providing quality education and quality practitioners to meet the health care needs of the community.

During the 1980s, in response to current trends in nursing education and licensure, the faculty began exploring options to position nursing education within the collegiate setting. In 1989 the process culminated with the decision of the Franciscan Sisters and the medical center administration to establish Our Lady of the Lake College of Nursing and Allied Health and to transition the diploma program into an Associate Degree in Nursing program.

In May 1990, Our Lady of the Lake College of Nursing and allied Health was registered with the Louisiana Secretary of State and the Louisiana State Board of Regents. In July 1990, the Louisiana State Board of Nursing granted the new college initial approval to offer the associate degree program in nursing and to admit the first class in August 1990.

The college is the parent institution of the Division of Nursing and the Division of Allied Health. In addition to the Associate Degree in Nursing, the college also offers an Associate Degree in Radiologic Technology and a Certificate in Surgical Technology. The certificate program in Surgical Technology was added in January 1992. The degree program in Radiologic Technology was implemented in August 1993.

The mission of Our Lady of the Lake College of Nursing and Allied Health as an independent Catholic institution predicated upon the values and philosophy of the Franciscan Missionaries of Our Lady. In an effort to meet the health care needs of the community, the college commits itself to selected undergraduate and pre-professional programs which provide the basis for excellence in the practice of health care and which constituted a solid foundation for student academic and personal development. The college espouses the goals of life-long learning and seeks to provide educational programs which support personal and professional growth.

(Adapted from: *Our Lady of the Lake College of Nursing and Allied Health Catalog, 1994-1996*).

Roanoke College

Roanoke College dates back to 1911 as a hospital-based diploma school of nursing. Two schools of nursing in the area consolidated in 1965 and became the Community Hospital of Roanoke Valley. Continued as a school of nursing until 1982, when the hospital board approved and the state corporation commission, the Virginia State of Higher Education approved us to create a College of Health Sciences. Roanoke College received regional accreditation by the Southern Association of Colleges and Schools in 1986 and was reaccredited in 1991 at the Associate degree level for programs in nursing, management, respiratory care, and emergency (paramedic) health sciences.

In 1994, Roanoke College was approved at the baccalaureate level for RN to BSN completion, the physician assistant program, occupational therapy, and health service management program. Today, Roanoke College offers certificates in phlebotomy and certified nursing assistant programs. Current enrollment is approximately 561 students.

(Adapted from: *Roanoke College 1996-1997 College Catalog*).

St. Vincent's College

The Daughters of Charity of St. Vincent de Paul have sponsored a school of nursing at St. Vincent's Medical Center since 1905 in which St. Vincent's Hospital School of Nursing was established in 1905. In 1976, St. Vincent's Medical Center was dedicated and the name of the school was changed to St. Vincent's Medical Center School of Nursing. In 1987 evidence supporting the transition of the diploma school to an independent college organized as a subsidiary of St. Vincent's Medical Center was acted upon favorably by the Medical Center Board of Directors. Efforts were directed toward merging the best of diploma education - a strong clinical education component - with associate degree education.

The desire to provide an educational option for health career preparation within the context of the Catholic philosophy led to the decision to make the transition from St. Vincent's Medical Center School of Nursing to St. Vincent's College of Nursing. The growth of the college continues. In 1995, the college, with the approval of the State of Connecticut Board of Governors for Higher Education, added a new major in radiography. The program was licensed on May 17, 1995.

St. Vincent's College derives its mission from the historic commitment of the Daughters of Charity of St. Vincent de Paul to care for the sick poor and to educate others for the health care ministry. The mission is guided by the Daughters of Charity National Health System Core Values Statement, "The Charity of Christ urges us to: Respect, Quality Service, Simplicity, Advocacy for the Poor, and Inventiveness to Infinity."

St. Vincent's College provides an education leading to an Associate Degree in Nursing and allied health fields. The college provides a curriculum in which caring and compassion are integral to the development of technical competency. Central to its Catholic identity, the college maintains an environment which encourages reflection on Judeo-Christian values and fosters the development of moral and ethical responsibility to self, community, nation, and the world. The college intends that the education it provides will be responsive to the current needs of the health care environment and will serve the foundation of on-going education and professional enrichment.

(Adapted from: *St. Vincent's College 1996-1997 Catalog*).

APPENDIX D

HUMAN SUBJECTS FORM

Information for Review of Research Involving Human Subjects
Iowa State University
(Please type and use the attached instructions for completing this form)



1. Title of Project A qualitative study of issues and trends in nine emerging allied health colleges in the United States

2. I agree to provide the proper surveillance of this project to insure that the rights and welfare of the human subjects are protected. I will report any adverse reactions to the committee. Additions to or changes in research procedures after the project has been approved will be submitted to the committee for review. I agree to request renewal of approval for any project continuing more than one year.

Deanne Marie Remer 10/25/96 Deanne M Remer
Typed Name of Principal Investigator Date Signature of Principal Investigator

Professional Studies in Education Current: 6976 N.W. Trailridge Drive, Johnston,
Department Campus Address Iowa 50131

(515)278-9540
Phone Number to Report Results

3. Signatures of other investigators Date Relationship to Principal Investigator
Deanne M Remer 10/25/96 Supervisor

4. Principal Investigator(s) (check all that apply)
 Faculty Staff Graduate Student Undergraduate Student

5. Project (check all that apply)
 Research Thesis or dissertation Class project Independent Study (490, 590, Honors project)

6. Number of subjects (complete all that apply)
9 # Adults, non-students # ISU student # minors under 14 other (explain)
 # minors 14 - 17

7. Brief description of proposed research involving human subjects: (See instructions, Item 7. Use an additional page if needed.)

See attachment

(Please do not send research, thesis, or dissertation proposals.)

8. Informed Consent: Signed informed consent will be obtained. (Attach a copy of your form.)
 Modified informed consent will be obtained. (See instructions, item 8.)
 Not applicable to this project.

**Information for Review of Research Involving Human Subjects
Iowa State University**

7. Brief description of proposed research involving human subjects.

The primary purpose of this qualitative research study will be to examine issues, trends and the role of allied health colleges as emerging institutions of higher education in the United States. Study participants will include nine Presidents of allied health colleges from the Midwest, Southeast and Eastern United States who are members of the National Consortium of Health Science Colleges.

A qualitative research design will be utilized to gather data for the study. Approximately two, sixty minute interviews consisting of open-ended questions will be audio-taped, transcribed and coded. The study will be guided by the following questions:

- 1) Reasons for the school's decision to transition from hospital based diploma/certificate education to a college of health sciences.
- 2) The role of the college president in an emerging college of allied health.
- 3) The impact of health care changes on curriculum and program development in the health sciences.
- 4) Major issues and trends college presidents have observed in health care education?
- 5) The current and future role of hospital based colleges of allied health in higher education.

Data analysis of the interview content will be based on emerging themes, common patterns, perceptions and experiences of the study participants. Structural corroboration and consensual validation methods will also be incorporated. Member checks will be completed by interviewees and the researcher will maintain a field journal which will be kept as an audit trail throughout the research period. Results of the study will be based on the elements of identified issues, trends and the role of allied health colleges in response to health care changes in the United States.

9. Confidentiality of data.

A cover letter and participant informed consent insures that, for the purposes of confidentiality, that all transcripts will be kept strictly confidential and all names, locations and organizations will receive pseudonyms for purposes of anonymity. Information obtained from the taped interviews will not be disseminated to others without the written consent of the respondent. The respondent has the right to withdraw at any time from the study, for any reason, and the research data (transcriptions and tapes) will be returned to the respondent upon request. Taped recordings of the interviews will be returned to study participants (upon request) or destroyed following the completion of the dissertation project.

Last Name of Principal Investigator Remer

Checklist for Attachments and Time Schedule

The following are attached (please check): (See Attachment A: Letter to Research Participants on ISU letterhead)

- 12. Letter or written statement to subjects indicating clearly:
 - a) purpose of the research
 - b) the use of any identifier codes (names, #'s), how they will be used, and when they will be removed (see Item 17)
 - c) an estimate of time needed for participation in the research and the place
 - d) if applicable, location of the research activity
 - e) how you will ensure confidentiality
 - f) in a longitudinal study, note when and how you will contact subjects later
 - g) participation is voluntary; nonparticipation will not affect evaluations of the subject
- 13. Consent form (if applicable) (See Attachment B: Participant Consent Form on ISU letterhead)
- 14. Letter of approval for research from cooperating organizations or institutions (if applicable)
- 15. Data-gathering instruments Tape recorded interviews. No other identified data-gathering instruments.

16. Anticipated dates for contact with subjects:

First Contact

October, 1996

Month / Day / Year

Last Contact

November, 1996 until all data are collected

Month / Day / Year

17. If applicable: anticipated date that identifiers will be removed from completed survey instruments and/or audio or visual tapes will be erased:

December, 1996

Month / Day / Year

18. Signature of Departmental Executive Officer

Date

Department or Administrative Unit

[Signature] 11/21/96 Pa. State Univ Ed

19. Decision of the University Human Subjects Review Committee:

Project Approved Project Not Approved No Action Required

Patricia M. Keith
Name of Committee Chairperson

12-5-96
Date

PMKeith
Signature of Committee Chairperson

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ACKNOWLEDGEMENTS

The completion of any graduate studies program, especially for a non-traditional student with professional and family responsibilities, means that there have been numerous people supporting that student. To those many people, I owe a great deal of gratitude. Without their assistance, my graduate studies at Iowa State University would not have been completed. I wish to recognize and express a special thank you to the my colleagues, mentors, friends, and family.

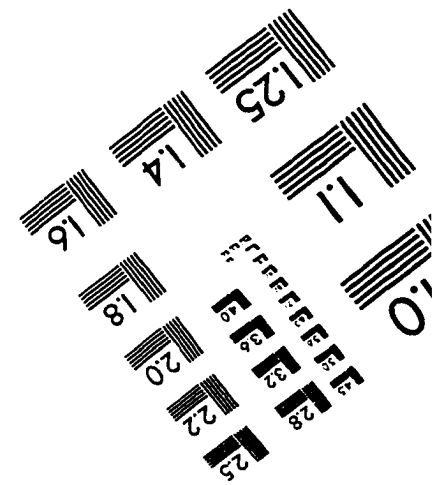
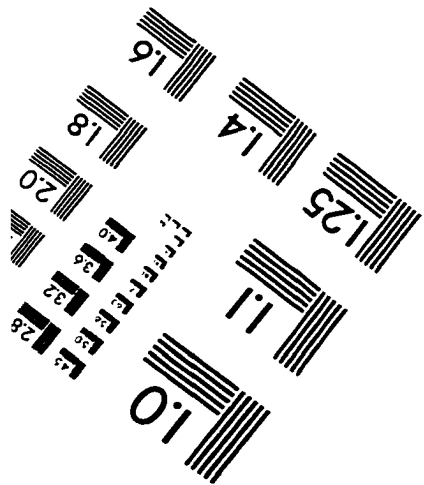
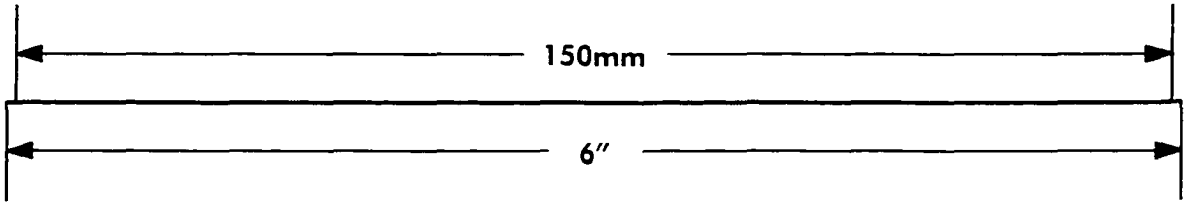
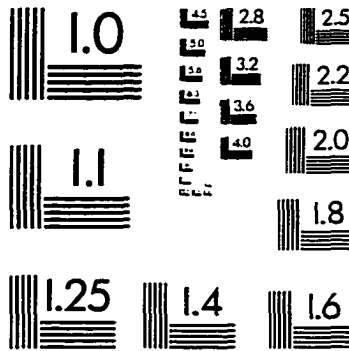
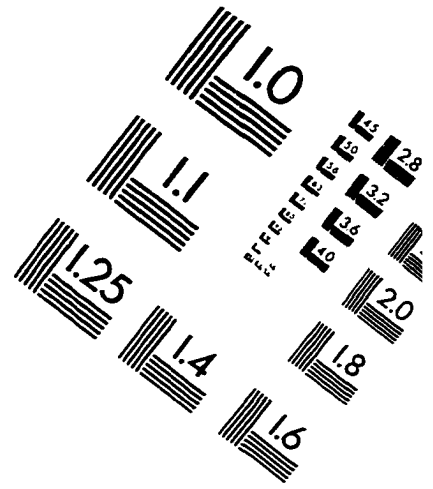
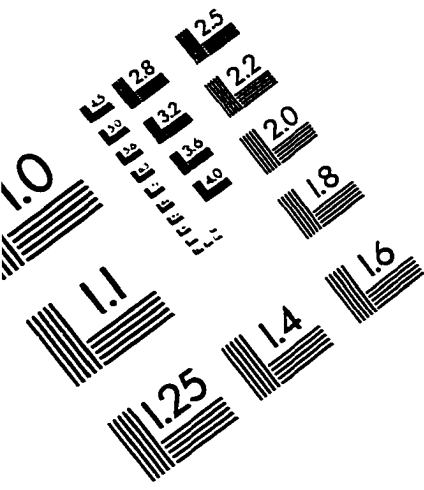
I am deeply indebted to my colleagues at Mercy College of Health Sciences who helped in many ways to make my work life easier and more productive. To the Administrative Team of Mercy Hospital Medical Center and the members of the Mercy College Board of Directors, I have appreciated the concern and encouragement you provided me throughout the years of course work and this research study. I am indebted to my valuable assistant, Jenyse Belden; the very capable library and media resource staff; the Administrative staff and the faculty of Mercy College who provided me with the needed assistance to keep going.

I am grateful to my advisor, Professor Dan Robinson, for his help and guidance throughout my graduate studies at the University. I am also indebted to the members of my committee, Dr. Robert Barak, Dr. Beverly Kruempel, Dr. Martin Miller and Dr. John Schuh--all who gave their valuable time and expertise to this project. I would also like to recognize the contribution of Professor John Wilson, a valued member of the Higher Education department at Iowa State University, who unfortunately passed away prior to the completion of this project.

I wish to express my appreciation to the Presidents of the National Consortium of Health Science Colleges, who took time from their busy schedules to respond to my calls and willingly provided any information requested of them. They were most gracious in their sharing of experiences and knowledge in order that I might gain a better understanding of allied health education. The nine Presidents included in this study, represent some of the finest allied health education colleges in the United States.

Finally, I wish to thank my family and close friends for their unflinching belief that I could finish this study and degree program. My family who gave me the time and space when I needed. To my husband, Dick and my three children Michael, Laura, and David for their patience and understanding through all the "degree" programs leading to this final doctoral degree. Thanks for your enduring support and for hanging in there.

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