Implementing the National Commission on Nurse Anesthesia Education recommendations

The National Commission on Nurse Anesthesia Education project team has implemented several initiatives to help relieve the shortage of nurse anesthetists in the United States. Attention has been directed to increasing public awareness of nurse anesthetists, increasing academic and clinical capabilities of existing programs, developing new nurse anesthesia education programs, and faculty development and retention. The activities of the Commission project team to date are described in this column.

Key words: Educational initiatives, National Commission on Nurse Anesthesia Education, nurse anesthetist shortage.

Introduction

The shortage of nurses has been evolving since 1984 in spite of the increased number of employed professionals. The shortage has been identified as being at grave proportions that will severely threaten the nursing profession and the entire healthcare system. The changes in delivery of healthcare that have been precipitated by the shortage have led to confusion regarding the function and role of nurses among other professionals, the public, and nurses as well. The impact of the shortage was experienced at all provider levels and throughout all nursing specialties. The nurse anesthesia specialty was among those that felt the pressures of insufficient supplies of caregivers.

This article describes the specific factors that led to the shortages in nurse anesthesia practice, the steps taken by the American Association of Nurse Anesthetists (AANA) to identify the causative factors, and the activities and initiatives performed to date in efforts to reverse the process.

National Commission on Nurse Anesthesia Education

In 1989 the leaders of the AANA were charged with identifying the causes of the severe shortage of Certified Registered Nurse Anesthetists (CRNAs) and to reverse the overall impact that this shortage had on the healthcare delivery system. The severe shortage of CRNAs has affected the healthcare delivery system in a variety of ways. First, it has decreased accessibility of health services to those clients in rural areas requiring anesthesia. Second, this shortage has increased the cost of anesthesia services as salaries were adjusted to maximize retention.

The third factor of concern when assessing shortages of health personnel is the effect on quality of care. CRNAs are working longer hours each day and more days each week to accomplish the anesthesia workload. In addition, substitution by non-
qualified health personnel to administer and/or monitor intravenous conscious sedation to patients having diagnostic procedures continues to be a major concern.

The primary reasons cited for the shortage were twofold:

- There had been a significant increase in utilization of CRNAs for anesthesia-related services.
- The number of graduates from nurse anesthesia educational programs had declined significantly.

The impact of the shortage was compounded by an aging population, an increase in patient acuity, and an increase in decentralization of surgical facilities.

Of greatest concern to the leaders of the AANA was the decline in the number of graduates each year. The reasons cited for the reduction were:

- An increase in program closures.
- A decrease in the number of qualified applicants.
- A decrease in the number of credentialed faculty/program directors.

The statistics regarding program closures were startling. In 1975, there were 210 accredited programs that graduated 1,200 students; in 1983, there were 143 programs with 1,100 graduates; in 1991, there were 89 programs with 700 graduates. The insidious nature of the shortage had to be impeded.

The total number of nurse anesthesia programs needed to be increased, the existing programs expanded, and faculty developed.

The National Commission on Nurse Anesthesia Education was appointed by the AANA Board of Directors in 1989. The multidisciplinary group was selected to specifically study the nurse anesthesia education process and recommend methods to resolve the issues at hand. The Commission was primarily responsible for organizing an in-depth study of nurse anesthesia education that included studying background materials, collecting statistical data, conducting hearings, and analyzing issues and trends affecting nurse anesthesia education.

The specific purposes of the Commission were to analyze the correlation of the CRNA shortage to the decline in the number of educational programs and to analyze methods to recruit and retain CRNA clinical and didactic faculty. Specific goals included extensive data collection, development of recommendations, and preparation of a final report to be delivered at the 1990 AANA Annual Meeting.

In an effort to accomplish the overwhelming task in a limited time period, the Commissioners were divided into two task forces—one to study educational programs and the other to study nurse anesthesia faculty. The Commissioners used data from surveys, research findings, the 1989 CRNA Manpower Study commissioned by Congress, and suggestions obtained from public hearings of the membership.

Two surveys were conducted by the Commission. The first survey yielded demographic data and profiles of program directors, students, faculty, and institutions. The second survey was specifically designed to address issues for all programs, i.e., the certificate, baccalaureate and graduate level programs. The results of these surveys served to provide a baseline for future data collection in a variety of aspects of nurse anesthesia education.

The Commissioners used data collected by faculty and students in personal research that included findings on faculty recruitment and retention and on program closures. The CRNA Manpower Study commissioned by Congress and performed by the Department of Health and Human Services in 1989 provided useful data for the Commission Study. The Manpower Study estimated the need for 35,000 CRNAs by the year 2010 (an increase of 40%). In order to meet the demand, programs of nurse anesthesia would need to graduate 1,800 students by the year 2000 and 1,500 by the year 2010. Public hearings were held at the AANA Assembly of States and the AANA Assembly of School Faculty meetings. The nurse anesthesia shortage and faculty development were the major topics of discussion.

Following data collection and analysis, the Commission members concluded that the shortage of nurse anesthetists was of crisis proportions and that this was related specifically to a significantly reduced educational capability for preparing the number of CRNAs. A report was given to the members at large at the 1990 AANA Annual Meeting that outlined eight goals to relieve the shortage (Table I).

**Initiatives**

The AANA Board of Directors responded to the Commission report by approving a three-year budget and by employing additional personnel to serve as a project team to accomplish the recommendations of the Commission. A marketing manager was hired to assist in increasing public awareness of nurse anesthesia education, a development manager was contracted to find mechanisms to fund the Commission activities, and a CRNA project manager was to hired to oversee the implementation of Commission activities and to concentrate on program expansion and development.

The completed and ongoing activities of the project team are presented as they relate to the goals identified by the Commission. Lynaugh stated that the creation of a "critical mass" of intellectuals in a
profession who are capable of developing creative and innovative solutions to the supply problem will help to alleviate the shortage.\textsuperscript{6} With this thought in mind the project team continued to tap the resources of the program directors to help meet the charges of the Commission.

- **Goal 1:** As a basis for efforts to increase the number of graduates from nurse anesthesia education programs, the Commission project team initiated data collection activities by conducting an expansion survey, a completion survey, and a hospital administrator survey. Many of the completed projects would not have been possible without the continued support, suggestions and cooperation of program directors. The purpose of the expansion survey was to determine if programs had the capability of expansion. Results of the survey showed that there were an additional 225 didactic spaces available and 150 clinical spaces available for education of nurse anesthesia students.\textsuperscript{7} Program directors cited several reasons for the inability to expand:
  - Lack of clinical access.
  - Insufficient numbers of faculty.
  - Unwillingness of the department chairman to consider expansion.
  - Economic constraints.

Several directors indicated that student enrollment was already at maximum levels.

A completion survey was conducted to determine if programs offered a degree completion track for their facility. The institutional information was collated and published in a brochure made available to interested parties. To date, approximately 50 programs have submitted information regarding this offering for CRNAs.\textsuperscript{7}

A survey was issued to 5,500 hospital administrators to collect data regarding the use of CRNAs at their facilities to determine what the CRNA vacancy rate was and to determine if administrators had an interest in nurse anesthesia education.\textsuperscript{8} Of the 2,087 respondents, approximately 550 indicated an interest in nurse anesthesia education by either wanting their facilities to serve as clinical sites or by wanting to develop programs for nurse anesthesia education. All data were filed according to state, and individual follow-up/assistance is being provided to interested parties.

The information collected from the expansion survey has been matched with that of the hospital administrators survey in an effort to open lines of communication with program directors in need of clinical sites and hospital administrators seeking such an arrangement. A preliminary feasibility assessment form is issued to those individuals who are potentially interested in developing nurse anesthesia programs. If the academic and clinical capabilities appear to meet the Council on Accreditation educational requirements, then a feasibility visit is made by the project manager to facilitate the process.

One of the major thrusts of the Commission project team was to target those states in the country that do not have educational programs (17 in number) for individualized assistance in implementing program start-up. This process is ongoing and the team continues to seek suggestions and contact names of individuals in those areas who may have insight into the logistics of program development.

Another goal of the project team has been to assist those program directors who are not yet offering a master's curriculum to meet the 1998 Council on Accreditation deadline.

Meetings are being held periodically with program directors, members of the Council on Accreditation, the AANA Department of Education and Research, and the Commission project team to identify barriers and to facilitate the process.

Other activities to assist in program development have included the creation of a two volume instructional manual for instituting a nurse anesthesia program, the creation of a software package and manual on cost accounting an educational program, and development of a database for educa-

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**Table I**

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<tr>
<th>Goals of the National Commission on Nurse Anesthesia Education</th>
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<td>1. Increase the number of annual graduates from nurse anesthesia educational programs by expansion of existing programs and development of new programs.</td>
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<td>2. Make nurse anesthesia education a more attractive career option, and establish a recruiting and placement service for CRNA faculty.</td>
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<td>3. Secure more equitable treatment of CRNAs, nurse anesthesia students, and graduates in all reimbursement guidelines and policies.</td>
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<td>4. Develop program directors and faculty to provide effective leadership.</td>
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<td>5. Promote interprofessional collaboration between CRNAs and anesthesiologists to enhance anesthesia education.</td>
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<td>7. Enhance CRNA/student awareness and understanding of professional issues as they relate to education, practice, and research.</td>
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<td>8. Develop funding and staffing mechanisms to accomplish the Commission's recommendations.</td>
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tional resources that are available to program directors.

* Goal 2: In an effort to make anesthesia education an attractive career, a mentorship program was developed to assist individuals in learning the responsibilities of program faculty. Potential faculty mentor on location with program directors to learn how to administer a program. A total of 16 have taken advantage of the program. A faculty referral system was developed and is available through the AANA Department of Education and Research to assist in placement of faculty.

* Goal 3: To secure equitable treatment of CRNAs and nurse anesthesia students, constant vigilance is maintained on legislative issues that could have an impact on nurse anesthesia programs. Lobbying activities by members of the Commission project staff and program directors to assure reauthorization of the Nurse Education Act took place in May 1992 in Washington, DC. A number of legislative initiatives support reauthorization of monies that would provide for continuation of traineeship monies for students, faculty development, and start-up funds for new programs. The AANA has actively lobbied for student services for reimbursement under Medicare Part B. New initiatives are being developed to investigate the potential for reimbursement of nurse anesthesia programs under Part A.

* Goal 4: Faculty development continues to be a major concern as the number of available positions for faculty in programs of anesthesia continues to rise. In response to this growing concern, a fellowship program sponsored by Burroughs Wellcome is available to financially assist faculty pursuing degrees. Burroughs Wellcome also sponsors a leadership conference that prepares individuals for leadership positions.

At the 1992 AANA Annual Meeting, the AANA Awards Committee began granting awards to recognize individuals who have made significant contributions to nurse anesthesia education. These awards will continue to be given annually to the Program Director of the Year, Clinical Instructor of the Year, and Didactic Instructor of the Year.

Two programs of nurse anesthesia responded to a request for proposal for an innovative method to degree completion for CRNAs. These programs—Case Western University/Frances Payne Bolton School of Nursing, Cleveland, Ohio, and the University of Kansas, Kansas City, Kansas—have been reviewed and recommended by the Commission on Nurse Anesthesia Education as leaders in innovative approaches to degree completion for CRNAs. Information regarding the programs has been made available through articles in the AANA Journal and a brochure.

* Goal 5: The leaders of the AANA continue efforts to establish lines of communication with the American Society of Anesthesiologists.

* Goal 6: Marketing efforts have been strong. The recruitment packets for prospective students and for organizations providing career counseling have been revised to include important institutional data, and several brochures have been created to target a variety of individuals including high school students, hospital administrators, chief executive officers, and deans (Table II). Lines of communication have been developed with the American Hospital Association. To increase awareness of nurse anesthesia, the AANA has exhibited at the professional meetings of such organization as the American Hospital Association, the National Student Nurses Association, and the American College of Health Care Executives.

| Table II |
| AANA Department of Education and Research informational materials |

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<tr>
<th>Title</th>
<th>Description</th>
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<tr>
<td>&quot;Focus on Your Future&quot;</td>
<td>Recruitment brochure for younger students</td>
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<tr>
<td>&quot;Questions and Answers About a Career in Nurse Anesthesia&quot;</td>
<td>Recruitment brochure for more advanced students that includes a detailed list of Nurse Anesthesia Education Programs</td>
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<tr>
<td>&quot;Nurse Anesthesia and the AANA&quot;</td>
<td>General information about the profession and the AANA</td>
</tr>
<tr>
<td>&quot;Degree Options Packet&quot;</td>
<td>Degree completion programs for CRNAs</td>
</tr>
<tr>
<td>&quot;Stand Up and Be Counted&quot;</td>
<td>Brochure for organizations interested in participating in nurse anesthesia education</td>
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* Goal 7: To enhance CRNA awareness of professional issues, a professional aspects book will be available for purchase in February 1993. The book outlines the structure of the AANA, as well as the professional, legal, and practice issues of importance to CRNAs. Although the book is primarily targeted for the newcomer, it will also serve as a reference for CRNAs in established practices.

* Goal 8: Grant options continue to be investigated. To date, a grant has been written for faculty continuing education. A second grant is in progress to secure funds for a learning center to be housed in the new AANA office. One of the purposes of the center will be to provide educational programs via teleconferencing to students for didactic credit and to CRNAs for continuing education credit.
Summary
Progress has been made in increasing the number of positions available to educate student nurse anesthetists. The progress is the result of all efforts to increase the CRNA shortage. Since late summer 1991, the number of clinical sites submitted by accredited programs to the Council on Accreditation of Nurse Anesthesia Educational Programs has continued to grow. A total of 28 new clinical sites have been approved with 18 out of 28 receiving approval in April 1992. Also during this period, one new program was awarded preaccreditation status and will begin admitting students as of fall 1992. Time lines for awarding of preaccreditation status have been determined for two programs.

The trend continues to be that fewer programs are educating more students. It is projected that there will be 953 graduates in 1993, a 40% increase over the 574 graduates in 1988. Currently there are 90 programs to educate nurse anesthesia students (Table III).

| Table III |
| Breakdown of nurse anesthesia programs |
| Master’s | 71 |
| Baccalaureate | 2 |
| Certificate | 17 |

Progress has been made, but the efforts must continue if a measurable reversal of the shortage is to occur. Securing short-term and long-term balances between supply and demand is an issue that confronts all disciplines. Mutual interest, concerns and approaches must be identified and achieved collectively. It is time for the nursing and medical community to develop an avant-garde approach to efforts to effect change in healthcare.

The spiraling cost of supporting the tremendous growth of higher education is obvious, and the need for federal research funds is great. Lobbying efforts to support allocation of grant monies remain crucial to survival of nurse anesthesia education.

The Commission project team now plans to primarily focus on faculty development/retention and on problems centered around clinical access. The Commission team is investigating telecommunication as a possible method of educational delivery in an effort to assist in the reduction of faculty workload by sharing didactic curriculum and to assist those individuals in rural areas who are interested in starting a nurse anesthesia program but lack academic capabilities.

Workshops are being planned for faculty to learn or refine skills in creative teaching in both the clinical and didactic setting. Acutely aware of the difficulties that program directors face with acquiring or maintaining clinical access, the Commission project team will be analyzing this problem in detail. In this as in all of its activities, the project team continues to seek creative and innovative methods of achieving the Commission's goals.

REFERENCES