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# Attitudes and Action Plans of North Carolina EMS Education Leaders Regarding National EMS Education Program Accreditation

Denise Anne Wilfong  
*University of Tennessee - Knoxville*

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To the Graduate Council:

I am submitting herewith a dissertation written by Denise Anne Wilfong entitled "Attitudes and Action Plans of North Carolina EMS Education Leaders Regarding National EMS Education Program Accreditation." I have examined the final electronic copy of this dissertation for form and content and recommend that it be accepted in partial fulfillment of the requirements for the degree of Doctor of Philosophy, with a major in Higher Education Administration.

E. Grady Bogue, Major Professor

We have read this dissertation and recommend its acceptance:

Norma Mertz, Terrell Strayhorn, Patricia Freeland

Accepted for the Council:

Dixie L. Thompson

Vice Provost and Dean of the Graduate School

(Original signatures are on file with official student records.)

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Norma Mertz

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Terrell Strayhorn

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Patricia Freeland

Accepted for the Council:

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Carolyn R. Hodges  
Vice Provost and Dean of the Graduate School

(Original signatures are on file with official student records.)

**ATTITUDES AND ACTION PLANS OF NORTH CAROLINA EMS EDUCATION  
LEADERS REGARDING NATIONAL EMS EDUCATION PROGRAM  
ACCREDITATION**

*A Dissertation*  
Presented for the  
*Doctor of Philosophy*  
Degree  
The University of Tennessee, Knoxville

Denise Anne Wilfong  
August 2009

## Abstract

The purpose of this study was to explore the attitudes and action plans of North Carolina Emergency Medical Services (EMS) education leaders related to the impending policy initiative of national EMS education program accreditation. The study utilized a purposive sample of EMS education leaders in North Carolina, including the current program directors of nine non-accredited associate degree programs in EMS in North Carolina and two administrative representatives from the North Carolina Office of EMS. Data were collected utilizing three different qualitative methods, including in-depth interviews, field notes, and document analysis. Five main recurring themes were derived from the data, including 1) accreditation will bring many benefits to programs that seek it, 2) accreditation will bring many challenges to programs that seek it, 3) the National Registry of Emergency Medical Technicians' decision to require national EMS program accreditation before graduates can take the national certifying examination had a resounding positive, but debatable effect on EMS education leaders in North Carolina, 4) accreditation will have a profound, positive effect on the EMS profession, and 5) the majority of the participants have an accreditation action plan. Overall, the attitudes of the participants towards national EMS program accreditation were positive. While numerous benefits were named by most of the participants, there still remains some question as to the benefits of accreditation. Participant concerns included lack of time and resources to prepare for accreditation and the overall cost of accreditation. The decision by the National Registry of Emergency Medical Technicians requiring candidates to graduate from an accredited EMS program by 2013 forced many participants into action, preparing for and seeking accreditation much earlier than if no deadline had been established. Accreditation is expected to elevate the EMS profession to the stature of other allied health and mainstream health professions, to

improve salary, to establish increased levels of professionalism, and to create continuity in EMS education across the United States. Finally, the majority of the participants have established action plans to address the accreditation process. Recommendations were made for action by local, state and national EMS entities and were made for future research involving accreditation.

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## Chapter I: Introduction to the Study

### *Background of the Study*

Accreditation practices in allied health care higher education programs are integral in ensuring accountability to the many internal and external stakeholders. Accreditation standards outline policies and processes that educational institutions and programs must follow to ensure quality assurance and continued improvement. Increasing public demands for educational accountability over the past few decades have spurred higher education institutions and allied health care education programs to verify and improve the quality of their programs and to ensure the competence of their graduates. In the realm of emergency medical services (EMS) education, the demand for quality assurance and accountability is paramount; thus, the move toward mandatory national EMS education program accreditation is occurring.

Paramedics play a pivotal role in providing prehospital health care in the United States and around the world. Routinely, they render immediate medical care at the scene of many traumatic events and medical emergencies. They are also proactive in educating the public in potentially life-saving techniques, such as cardiopulmonary resuscitation, first aid, and recognizing, treating, and preventing medical and traumatic emergencies. Paramedics serve as the link between the prehospital setting and the emergency department, providing care for and sharing important information about patients. They are autonomous, working without direct supervision of their patient care activities during the majority of their shifts. Paramedics must be functional in numerous stressful and unusual situations, adapting rapidly to the dynamic nature of prehospital emergency care.

Currently, there are three different educational paths by which an individual may be trained and educated to become a paramedic. The first is through a certificate program.

Certificate programs are freestanding programs that offer the minimum Department of Transportation National Standard Curriculum, which defines the entire domain of knowledge to be covered in EMS educational programs. Some of the certificate programs are offered through community colleges and universities; however, these courses are usually offered for no college credit. Certificate programs generally can be completed within one year.

The second educational path is a two year, community college based curriculum, culminating in an associate's degree (AD). The two year curriculum includes the minimum Department of Transportation National Standard Curriculum, general education, and a few ancillary courses. The AD programs in EMS are usually designed to provide convenience for the students by offering courses at flexible times for busy individuals with work and family responsibilities.

The third and final path is for an individual to complete a baccalaureate degree program. The minimum Department of Transportation National Standard Curriculum is incorporated into a curriculum that includes two years of additional general education. The length of the program allows for extended coverage of courses that AD and certificate programs, due to time constraints, cannot address. In addition to the paramedic core curriculum, these baccalaureate programs may typically include concentrations in management, education, or science/pre-medicine. After successfully completing any one of these three types of programs, the individual is eligible to take state and national paramedic certification exams to gain credentials for licensing and employment, regardless of the programs' accreditation status.

Each state individually licenses practicing EMS professionals. Currently, 43 states utilize the National Registry of Emergency Medical Technicians' paramedic certification examination as the sole process of licensing paramedics (See Table 1). The National Registry of Emergency

**Table 1: States Not Utilizing the National Registry of Emergency Medical Technicians' Certification Process**

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**Non-Registry States (Paramedic Level)**

---

Florida (utilizes Emergency Medical Technician-Basic level only)  
 Illinois  
 Massachusetts  
 New York  
 North Carolina  
 Utah  
 Wyoming

---

(NREMT, 2007a)

Medical Technicians was established in 1970, certifying EMS providers through registration and examination processes. Its mission is “. . . to serve as the national EMS certification organization by providing a valid, uniform process to assess the knowledge and skills required for competent practice of (EMS) professionals throughout their careers and by maintaining a registry of certification status” (NREMT, 2007). The National Registry of Emergency Medical Technicians is granted authority from its Board of Directors that is comprised of EMS stakeholders from across the nation. The association certifies EMS personnel at the First Responder, Emergency Medical Technician-Basic, Emergency Medical Technician-Intermediate, and the Emergency Medical Technician-Paramedic levels. States choosing not to utilize the National Registry of Emergency Medical Technicians' process have established their own individual credentialing examinations to license prehospital personnel.

Students and the public are assured of an educational program's quality through the verification of the accreditation process. “Accreditation is thus a critical professional mechanism to protect public trust and safety” (Cusick & Adamson, 2004, p. 134). Accreditation is a set of quality tools and processes used to assist educational institutions and programs in determining if

they are meeting predetermined standards and criteria. Accreditation is designed to ensure quality and accountability of higher education institutions and programs. “Essentially, accreditation is the satisfaction by professional education programs of minimum requirements in such areas as curriculum, faculty credentials, financial stability, admission and records, student evaluation, and administrative practices” (Szymanski & Linkowski, 1995, p. 12). Accreditation is a cyclical process that reviews all aspects of the educational experience and encourages continual quality improvement.

Program accreditation involves a rigorous series of activities. Preparation to meet these standards and requirements can be time consuming and costly. However, accreditation promotes high quality performance of the graduates completing the programs. “The public and employers expect [EMS education program] graduates to be competent in a wide range of practical skills and have the ability to adapt to an ever-changing and complex environment” (NHTSA, 2000, p. 18). Accreditation also helps programs take a constructive view inward and supplements the findings with a peer review process followed by a review by a committee of experts who strive for consistent application of accreditation standards across programs.

Accreditation of EMS education programs is not new; however, many EMS education programs remain unaccredited because accreditation brings with it few ramifications for programs or graduates. Currently, the only national accrediting body for EMS programs is the Committee on Accreditation of Educational Programs for the EMS Professions. It was established in 1978 as the Joint Review Committee on Educational Programs for the Emergency Medical Technician-Paramedic. The title was eventually changed to address the Committee’s evolving mission. The Committee on Accreditation of Educational Programs for the EMS Professions is a member of the Commission on Accreditation of Allied Health Education

Programs. The Commission on Accreditation of Allied Health Education Programs currently has 17 different accreditation committees, each representing an allied health profession, including EMS professions (CAAHEP, 2006). The Committee on Accreditation of Educational Programs for the EMS Professions was established to “. . . continuously improve the quality of EMS education through accreditation and recognition services for the full range of EMS professions” (COAEMSP, 2006). It has developed goals through its strategic planning activities. One of these goals “. . . is to have all Paramedic training programs nationally accredited” (COAEMSP, 2007). According to the Committee on Accreditation of Educational Programs for the EMS Professions’ website, only 239 of the estimated 500-600 paramedic programs nationally are accredited (COAEMSP, 2008; Hunter, 2008; York, 2007).

The EMS profession has begun implementing the recommendations of the 1996 groundbreaking document, *EMS Agenda for the Future*. The National Highway Traffic Safety Administration, the Health Resources and Services Administration, and selected leaders from the EMS profession convened to create this strategic plan for the future of EMS. The document highlighted the status of EMS at that time and delineated a specific plan for the future development of a number of areas, including education systems (NHTSA, 1996). The plan included a proposal for a number of improvements for EMS education, including the accreditation of EMS education programs. “EMS education programs should seek accreditation by a nationally recognized accrediting agency” (NHTSA, 1996, p. 34). The report fostered action in many different areas of the EMS education community. Table 2 is a visual exploration of the critical developments related to national EMS program accreditation.

In 1998, the EMS Education Taskforce was created by the National Highway Traffic Safety Administration and was charged with designing a plan to define the components of the

**Table 2: Critical Developments Related to National EMS Program Accreditation**

<b>Date</b>	<b>Development</b>	<b>Responsible Organizations</b>
1978	Joint Review Committee on Educational Programs for the Emergency Medical Technician-Paramedic/ Committee on Accreditation of Educational Programs for the EMS Professions Established	Commission on Accreditation of Allied Health Education Programs
1996	EMS Agenda for the Future	National Highway Traffic Safety Administration, Health Resources and Services Administration, EMS Leaders
1998	EMS Education Agenda for the Future	National Highway Traffic Safety Administration
1999	EMS Agenda for the Future: Implementation Guide	National Highway Traffic Safety Administration, Maternal Child Health Bureau, Health Resources and Services Administration
2002	State of EMS Education Research Project	National Highway Traffic Safety Administration, National Association of EMS Educators
2004	National EMS Core Content	National Association of EMS Physicians, American College of Emergency Physicians
2006	EMS at the Crossroads Report	National Academies Institute of Medicine
2007	National EMS Scope of Practice Model	National Highway Traffic Safety Administration, Health Resources and Services Administration
2007	EMS Program Accreditation Required for National Certification Examination Eligibility	National Registry of Emergency Medical Technicians
2009	National EMS Education Standards	National Highway Traffic Safety Administration, Health Resources and Services Administration, National Association of EMS Educators

EMS education system. The product of the Taskforce was the *EMS Education Agenda for the Future: A Systems Approach*. It designated five interrelated areas of the EMS education system, including National EMS Core Content, National EMS Scope of Practice Model, National EMS Education Standards, National EMS Education Program Accreditation, and National EMS Certification (NHTSA, 2000). “[T]he absence of a structured education system has resulted in considerable state-by-state variability in EMS education and licensing standards and a lack of clear-cut future direction” (NHTSA, 2000, p. 5). The *EMS Education Agenda for the Future: A Systems Approach* ultimately called for a systematic approach to improving EMS education and replacing the piecemeal activities of the past. It recommended accreditation for all EMS education programs and stated that “a graduated phase-in plan will be developed for implementation of national accreditation” (NHTSA, 2000, p. 29).

The *EMS Education Agenda for the Future: A Systems Approach* also listed goals imperative to achieving uniform program accreditation and the appropriate stakeholders to be involved. These goals include disseminating information about accreditation to EMS education programs, recognizing the *National EMS Education Standards* as the curriculum for use during the accreditation process, providing informational accreditation workshops to EMS programs, and accrediting 100 percent of the EMS education programs in the nation. The stakeholders related to these goals include the yet to be designated national accreditation agency, local, state, and federal governments, individual state EMS agencies, and EMS education programs (NHTSA, 2000).

In addition to this, the National Highway Traffic Safety Administration, the Maternal and Child Health Bureau, and the Health Resources and Services Administration joined together in



1999 to create *The EMS Agenda for the Future: Implementation Guide*. This guide was designed as a tool to help the EMS community move toward the realization of the recommendations made in the *EMS Agenda for the Future* plan. It offers a short, intermediate, and long term objective for each highlighted area of improvement and identifies potential participants to be included in actions to achieve each. The short term objective related to EMS education program accreditation recommended research into the cost and benefits of accrediting EMS programs. The intermediate objective was to “. . . develop strategies to facilitate national accreditation of EMS educational programs” (NHTSA, 1999, p. 64). Finally, the long term objective recommended identifying and recognizing accreditation of EMS education programs by a single national entity.

The *National EMS Core Content* was the first of the *EMS Education Agenda for the Future: A Systems Approach* recommended components to be completed. In 2001, the National Association of EMS Physicians and the American College of Emergency Physicians formed a taskforce and charged it with developing the template of core competencies that EMS providers must master. The core content serves as the domain of the prehospital practice and includes a comprehensive list of patient conditions, specific patient levels of acuity, and the prehospital treatments to be administered (NAEMSP, 2004). The *National EMS Core Content* was completed and implemented within EMS educational practice in 2004.

The *National EMS Scope of Practice Model* was the second component completed. The National Highway Traffic Safety Administration and the Health Resources and Services Administration joined together in 2002 to draft this document, forming a taskforce charged with researching the current state of prehospital provider levels. The taskforce discovered that, at the time, there were approximately 44 different levels of prehospital providers in the country,

creating confusion and inconsistency within the profession. In an effort to create national consistency, this document delineates four proposed levels for EMS practice: Emergency Medical Responder, Emergency Medical Technician, Advanced Emergency Medical Technician, and Paramedic. Each level was defined, and the specific skills approved for each level were included. The fourth and final draft of the document was submitted in 2007 to the National Highway Traffic Safety Administration for approval and implementation (National Scope of Practice Model, 2007).

The third component, the *National EMS Education Standards*, was written by a cadre of nationally prominent EMS educators. The project was led by the National Highway Traffic Safety Administration, the Health Resources and Services Administration, and the National Association of EMS Educators. “The *National EMS Education Standards* will increase EMS education program flexibility, encourage creativity in education programs, and improve and facilitate alternative delivery methods, such as problem based learning, computer-aided instruction, distance learning, programmed self-instruction, and other methods” (NEMSES, 2007). The *National EMS Education Standards* include learning objectives for each of the proposed *National EMS Scope of Practice Model* provider levels. In addition, the *National EMS Education Standards* include instructional guidelines for each of the content areas. These guidelines are listed in outline form and include key knowledge points, essential skills, and elaborations with detailed points to cover for each section. The final draft of *The National EMS Education Standards* has been submitted to the National Highway Traffic Safety Administration for implementation. Implementation committees have been formed to determine how the standards will be incorporated into EMS education. These standards are scheduled to replace the Department of Transportation National Standard Curriculum by 2010.

The expectation for national accreditation of all EMS education programs is the next of the essential components listed in the *EMS Education Agenda for the Future: A Systems Approach* to be undertaken and accomplished. In preparation for the accreditation requirement, a number of important studies related to accreditation have been completed. In response to the *EMS Education Agenda for the Future: A Systems Approach*, in 2002, the State of EMS Education Research Project taskforce was created by the National Highway Traffic Safety Administration and the National Association of EMS Educators. The taskforce included individuals from various national EMS organizations. Taskforce members confirmed the importance of program accreditation and recommended national accreditation for EMS education programs that prepare graduates for each specific level of certification (Ruple, Frazer, & Bake, 2006). Ruple, Frazer, & Bake (2006) suggest that accreditation will foster improved working environments and conditions for EMS educators. The State of EMS Education Research Project “. . . concluded that much work is needed to bring the EMS educational system up to a standard that meets the critical review of other health care education processes” (Ruple, Frazer, & Bake, 2006, p. 230). Standardization of the EMS education process through accreditation is expected to bridge the existing gap of inconsistencies between the different types of EMS education programs.

The overall value of national EMS education program accreditation has yet to be realized. One recent study, the first of its kind in EMS education research, reported that students that graduated from an accredited EMS education program were more likely to pass the paramedic national certification examination than those students that graduated from a non-accredited EMS education program (Dickison, Hostler, Platt, & Wang, 2006). The authors included 12,773 individuals who took the National Registry of Emergency Medical Technician-Paramedic

examination during a one year period. The candidates' EMS education program accreditation status was confirmed by the Committee on Accreditation of Educational Programs for the EMS Professions. Sixty-five percent of the individuals graduating from an accredited EMS education program passed the examination, whereas only 53% of the individuals graduating from a non-accredited EMS education program passed the examination (OR 1.65, 95% CI: 1.51-1.81). Dickison and his colleagues suggested a number of theories for the difference in pass rates, including individual faculty educational preparation and increased program hours (i.e. classroom, laboratory, and clinical). The authors recommended supporting the proposed requirement for mandatory EMS education program accreditation in order to ensure competent and high quality graduates. These data provide a compelling argument for mandating national EMS education program accreditation.

In 2006, the Institute of Medicine released a troubling study of EMS systems nationally. This report, *Emergency Medical Services at the Crossroads*, documents the shortcomings, issues, and weaknesses of EMS systems nationwide. The report noted that wide variation exists among EMS education providers and noted the lack of standardization of education and credentialing from state to state. One of the main recommendations of the Institute of Medicine report called for the accreditation of all EMS education programs (IOM, 2006). In addition, the report also recommended federal funding measures and support services be provided to assist programs in the accreditation process. This report may serve as a catalyst for the national accreditation implementation process within EMS education.

Taking a step toward mandatory national EMS program accreditation and toward a linkage between accreditation and national EMS certification, in November 2007 the National Registry of Emergency Medical Technicians' Board of Directors voted to mandate that only

candidates graduating from accredited EMS programs may attempt the national paramedic certification examination (NREMT, 2008). As of January 2013, only those individuals who complete and graduate from an accredited EMS education program will be permitted to take the National Registry paramedic certification examination. This action may help facilitate the move toward mandatory EMS education program accreditation.

*Statement of the Problem*

Currently, national accreditation for EMS education programs is not required in order to take the National Registry of Emergency Medical Technicians' paramedic certification examination; however, efforts are underway to mandate accreditation as is done in most other professions. With the exception of teacher education, most professions require candidates for national certification to graduate from an accredited education program. When implemented, national accreditation would become a requirement for all paramedic-level EMS education programs wishing for their graduates to take the national certification examination regardless of their type, size, affiliation, or location. Requiring accreditation will potentially have dramatic impacts on EMS education programs and EMS education leaders.

Preparing for the accreditation process requires dedicated individuals, appropriate resources, and a specific action plan. The accreditation process will potentially be difficult for many EMS education programs, especially those in rural areas or those who are not affiliated with a higher education institution or other appropriate sponsoring institution. Lack of technical assistance, finances, appropriate resources, and a strategic plan may force some programs to close. As EMS education marches towards mandatory national accreditation, many EMS programs may struggle to keep pace.

If programmatic accreditation requirements curtail available EMS education programs, the number of graduates may be reduced in a system with a current shortage of EMS providers nationally. The number of graduates completing EMS education programs of study has a direct bearing on EMS as a part of the nation's health care system. "The Bureau of Labor Statistics projects that employment of emergency medical technicians and paramedics will increase by 59,000 new jobs between 2002 and 2012, an estimated growth rate of 33%" (IOM, 2006, p. 104). The current shortage of paramedics will continue to worsen if a coordinated approach cannot be identified to assist programs to successfully obtain accreditation.

There are a number of costs associated with accreditation. Currently, the Committee on Accreditation of Educational Programs for EMS Professions' initial application fee is \$1200, the initial self-study fee is \$500, the initial annual report compact disk fee is \$250, and the initial site visit fee is between \$1,500 and \$2,500 which is based upon the costs of bringing site visitors to the institution. An annual institutional fee of \$450 is paid to the Commission on Accreditation of Allied Health Education Programs. Additionally, fees to maintain accreditation include the \$500 continuing self-study fee, a \$1,200 annual fee, and continuing site visit fees of \$1,500 to \$2,500 every 5 years (COAEMSP, 2007). Requiring accreditation of all EMS education programs "... would increase administrative and fiscal burdens upon individual programs and potentially would make it difficult for rural and marginally funded education sites to attain national accreditation" (Dickison, Hostler, Platt, & Wang, 2006, p. 224). Lack of appropriate monetary resources to use for the accreditation process could potentially constrain EMS education programs.

Despite the increase in national support for accreditation, only a moderate portion of EMS programs have achieved accreditation. Out of an estimated 500-600 EMS programs

Table 3: States Mandating EMS Program Accreditation

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Mandatory Accreditation

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Alabama  
Arkansas  
California  
Colorado  
Indiana  
Kansas  
Maryland  
Minnesota  
Mississippi  
New Mexico  
New York  
Utah  
Virginia  
Wyoming

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(COAEMSP, 2007a)

nationally, 37-44% (239) have obtained national accreditation (COAEMSP, 2008; Hunter, 2008; York, 2007). Currently, only 14 states mandate national EMS program accreditation (See Table 3) (COAEMSP, 2007). In North Carolina specifically, where there is no current state mandate requiring accreditation, there is one baccalaureate degree program in EMS, which is accredited, and 12 AS degree programs in EMS. Of the 12 AS degree programs in EMS, only one is accredited (COAEMSP, 2007). Despite the fact that North Carolina does not utilize the National Registry of Emergency Medical Technicians' credentialing process, many paramedic graduates choose to voluntarily take the national certification examination in addition to the North Carolina state paramedic certification examination. The impending policy implementation would impact the ability of these individuals to take the national certification examination in the future.

It is not known what attitudes EMS education leaders have concerning the impending policy implementation or if they have enacted action plans preparing for the impending policy

implementation. It is also not known how states that do not mandate national EMS program accreditation or do not participate in the National Registry of Emergency Medical Technicians' credentialing process will respond to the accreditation policy implementation.

### *Purpose*

The purpose of this study was to explore the attitudes and action plans of North Carolina EMS education leaders related to the impending policy initiative of national EMS education program accreditation.

### *Research Questions*

The following research questions were addressed in the study.

1. How do EMS education leaders in North Carolina view the impending policy initiative involving national EMS program accreditation?
2. Do EMS education leaders in North Carolina plan to seek accreditation?
  - a. If so, what steps have been taken?
  - b. If not, why?

### *Significance of the Study*

EMS as a profession is at a critical decision point in its evolution and development. Beyond the Department of Transportation National Standard Curriculum, there is no national standardization of EMS education or the programs providing that education. Each state regulates EMS education independently. "The education and training requirements for the EMTs and paramedics are substantially different from one state to the next and consequently, not all EMS personnel are equally prepared" (IOM, 2006, p. 6). This leaves the profession in an awkward transitional moment. Numerous national activities, including EMS education program accreditation, are in progress, working towards national consistency in EMS education.



EMS education is experiencing a period of important growth and development. Never before has there been such a push by so many influential national organizations for increasing the quality and standardization of EMS education through the vehicle of national EMS education program accreditation. EMS education is rapidly moving toward completing the goals established in the *EMS Education Agenda for the Future: A Systems Approach*. All EMS education programs with graduates taking the National Registry of Emergency Medical Technician-Paramedic certification examination will soon be required to achieve and maintain accreditation (NREMT, 2007). In addition, the push for mandating national EMS program accreditation is on the horizon. This forward momentum is moving EMS towards recognition as a profession.

Professionalization theory describes a profession's evolution from a trade to a recognized profession (Jarausch, 1990). Professionalization is a set of related components and steps that an occupation evolves through to ultimately be recognized as a profession. The original professions include medicine, clergy, and law. Many other occupations have ascended through the professionalization process, including engineering, accounting, physical therapy, veterinary medicine, and nursing. The essential components of a profession include having a service orientation, a scientific body of knowledge, training in a higher education institution, autonomy, a code of ethics, licensure, a professional association, a national research journal, and accreditation of education programs. EMS has progressed through many of the steps of professionalization. EMS program accreditation is occurring, completing another step in the EMS professionalization process.

Numerous national movements and studies have recommended mandatory EMS education program accreditation. This transition will not be easy for many EMS programs,

institutions, and leaders. Identification of the attitudes and action plans of North Carolina EMS education leaders will illuminate one state's current stance toward and amount of preparation for national EMS education program accreditation. This study serves to inform local, state, and national EMS entities and stakeholders about the posture that states not mandating national EMS program accreditation or not participating in the National Registry of Emergency Medical Technicians' credentialing process may take in response to the impending accreditation policy implementation.

#### *Delimitations of the Study*

The following delimitations were established for the study. Only one state, North Carolina, was examined. The study involved a purposeful sample of the program directors of nine non-accredited AD programs in EMS in North Carolina. These included Carteret Community College in Morehead City, Coastal Carolina Community College in Jacksonville, Davidson County Community College in Lexington, Fayetteville Technical Community College in Fayetteville, Gaston College in Dallas, Guilford Technical Community College in Greensboro, Sandhills Community College in Pinehurst, Southwestern Community College in Sylva, and Wake Technical Community College in Raleigh (NC OEMS, 2006). The study also included two administrative representatives from the North Carolina Office of EMS. Finally, only EMS education program accreditation at the Emergency Medical Technician-Paramedic level was included in the study.

#### *Limitations of the Study*

The study results include personal responses and opinions of program directors from nine non-accredited AD programs in EMS in North Carolina. Therefore, their input may not be representative of all AD programs in EMS throughout the nation. The study also included two

administrative representatives from the North Carolina Office of EMS. Their responses may not be entirely representative of their organization. Finally, North Carolina does not currently utilize the National Registry of Emergency Medical Technicians' credentialing process, requiring only that EMS providers successfully complete the North Carolina Office of EMS credentialing examination to practice within the state. As a result, not all graduates of North Carolina EMS education programs currently attempt the national certification examination.

### *Definitions*

Accreditation is a cyclical, quality enhancement process for higher education institutions and programs and is comprised of a self study, site visit, and peer review process to determine adherence to established standards and criteria.

EMS education leaders are defined as individuals involved in local and state EMS education provision, governance, and decision making. These include the current program directors of nine non-accredited AD programs in EMS in North Carolina and two administrative representatives from the North Carolina Office of EMS.

Much confusion exists about the terms certification and licensure. States list either certification or licensure as EMS provider credentialing designations (Brown, 2007). "Certification is a voluntary process by a private organization for the purpose of providing the public information on those individuals who have successfully completed the certification process" (Abram, 2002). Many states refer to licensure as certification, creating confusion within the profession and among the public. "Licensure . . . is the state's grant of legal authority, pursuant to the state's police powers, to practice a profession within a designated scope of practice" (Abram, 2002).

State statutes delineate who may practice and the extent to which they practice (Abram, 2002). Private certification agencies, like the National Registry of Emergency Medical Technicians, cannot authorize individuals to practice within a state. Only state offices of EMS have that authority (Abram, 2002). “When the government issues a ‘permit to work’ that permit has the effect of a ‘license’, even if the state calls it a ‘certification’” (Brown, 2007, p. 2).

### *Organization of the Study*

The study is reported in five chapters. Chapter 1 provides an overview of the study including the introduction, background of the study, statement of the problem, purpose statement, research questions, significance of the study, delimitations, limitations, and definitions. Chapter 2 presents a review of the current literature on the evolution of accreditation and accreditation in health-related fields. Chapter 3 identifies the methods and procedures of the study, delineating the steps followed during investigation, data collection and analysis, and trustworthiness and credibility measures employed. Chapter 4 sequentially reports the findings of the study as they relate to the proposed research questions. Chapter 5 summarizes and discusses the study findings, draws significant conclusions based on these findings, and proposes recommendations and strategies for the field of EMS education and for further research in related areas.

## Chapter II: Review of Literature

### *Introduction*

Accreditation literature is well represented in higher education, and specialized accreditation research is documented in many health care professions. However, in EMS education program accreditation, research is limited. A discussion of the development, growth, and evolution of accreditation is necessary. The chapter begins with a discussion of professionalization, its components, and how the process relates to accreditation. The types and process of accreditation will be reviewed. The numerous stakeholders involved with accreditation will be identified. The chapter continues with a discussion of the role of accreditation in higher education, including the criticisms of accreditation. This chapter also reviews the history of program accreditation for medicine, nursing, physical therapy, allied health, and EMS. Finally, the future of accreditation in EMS education is considered.

### *Professionalization*

Professionalization is a set of related components and steps that an occupation or trade evolves through to ultimately be recognized as a profession and to maintain the exclusive right to practice (Lynn, 1965). It is a complicated process that evolves over time. Professionalization is the development of a profession in a path similar to other previously established professions (Abbott, 1988). The original professions include medicine, clergy, and law. Many other occupations have ascended through the professionalization process, including engineering, accounting, physical therapy, veterinary medicine, numerous allied health professions, and nursing. The essential components of a profession include having a service orientation, a scientific body of knowledge, training in a higher education institution, autonomy, a code of

ethics, licensure, a professional association, a national research journal, and accreditation of education programs.

Each profession should have a service orientation focused on and centered around the greater good. “A profession delivers esoteric services—advice or action or both—to individuals, organizations or government; to whole classes or groups of people or to the public at large” (Lynn, 1965, p. 1). Duckat (1970) agreed, stating that professions have the distinction of being focused on service to society rather than on personal gain. “[T]he welfare of the professionals’ clients is vitally affected by the competence and quality of the service performed” (Moore, 1970, p. 3). Society entrusts professions to provide specific services and expects timely, accurate, and competent performance of those services.

A profession must be based on a scientific body of knowledge. “[P]rofessions are collective human enterprises as well as vehicles for special knowledge, belief, and skill” (Freidson, 1970, p. xix). This set of specific knowledge and skills is germane to the profession. “[C]ertain specific work activities are valued enough such that those activities become distinctly differentiated from others and publicly recognizable” (Moore, 1970, p. 52). The profession’s knowledge and skills require specialized training and formal education (Moore, 1970).

A profession’s body of knowledge requires lengthy training and education in a specific curriculum in order to master the specific occupational skills (Vollmer & Mills, 1966). This training and education is accomplished through rigorous programs within institutions of higher education (Hatch, 1988). “[T]he emerging or marginal professions, when they are trying to raise standards for themselves, seek to locate themselves in universities” (Lynn, 1965, p. 20). Moore (1970) stated that it is “extremely improbable that technically trained persons with less than the

equivalent of the American baccalaureate degree [to] manage to achieve the higher relative positions in any scale of professionalism” (p. 13).

Autonomy of practice is a critical element of a profession (Duckat, 1970; Jarausch, 1990). Autonomy is the independence to practice the skills, to regulate activities, and to establish standards within the bounds of the profession (Hatch, 1988). Individuals within a profession are autonomous and self-directing (Friedson, 1970). Friedson (1970) describes a profession as “an occupation which has assumed a dominant position in a division of labor, so that it gains control over the determination of the substance of its own work” (p. xvii). Autonomy indicates that society trusts professionals to do specialized work and service. The profession regulates itself. If corrective action needs to be taken, it does (Friedson, 1970). “[T]he most strategic distinction lies in legitimate, organized autonomy—that a profession is distinct from other occupations in that it has been given the right to control its own work” (Friedson, 1970, p. 71). Autonomy allows a profession to govern its own functioning, to determine legislative issues, and to be judged by the profession and not the lay public (Friedson, 1970).

A profession must be governed by a clearly defined code of ethics (Abbott, 1988; Friedson, 1970; Lynn, 1965; Moore, 1970; Vollmer & Mills, 1966). This code of ethics serves as the morality standard of behavior and action for the profession. In addition, the professionals are encouraged to participate in ethical training programs (Lynn, 1965). Deviation from these ethical standards must be addressed by the profession. Violation of the code may result in the suspension or revocation of the right to practice within the profession.

Licensure is a critical component of a profession (Abbott, 1988; Friedson, 1970; Hatch, 1988; Lynn, 1965). Licensure defines rules of performance that are professional obligations and

rules of competence which are admission standards (Friedson, 1970). Licensure assists a profession by controlling entry into that profession. Individuals within the profession make up the licensing organizations or entities (Friedson, 1970). Only individuals who have completed an approved educational program and successfully completed the licensing examination are permitted entrance into the profession. The profession governs the competence of its members (Vollmer & Mills, 1966). There are specific licensing standards required for initial licensure and performance standards required to maintain that licensure. Only professionals may practice. Non-trained individuals do not have the right (Friedson, 1970). Licensure exams are created by the profession through professional associations.

Professions must have at least one national association (Abbott, 1988; Friedson, 1970; Lynn, 1965; Moore, 1970; Vollmer & Mills, 1966). Associations help perform the work of the profession. They bring individuals from various geographical locations together to solve problems and to help strengthen the profession. These associations establish a professional culture (Vollmer & Mills, 1966). They represent the interests of individuals and of the profession at a national level. The association acts as the voice of the profession. All members and stakeholders of the profession are encouraged to join.

Professions must have a peer-reviewed research journal for the dissemination of new knowledge (Abbott, 1988). Research journals allow evidence-based and other inquiries to be published and accessed by all individuals and stakeholders of the profession. This research helps update and redefine the professions' skills, knowledge, and practices.

Finally, accreditation is a critical piece of the professionalization process (Abbott, 1988). Accreditation insures quality measures are in place and that standardization of education is



present. Professions also require individuals to graduate from a nationally accredited program in order to be eligible for national credentialing examinations.

### *Evolution of Accreditation*

Higher education accreditation evolved in purpose and scope during the Twentieth Century. Accreditation is a process that has its unique roots in America, but is now being utilized in other countries. It is a voluntary process free of direct governmental involvement. Unlike some countries, in the United States control over higher education institutions is delegated to individual states and non-governmental agencies, without direct federal government oversight (Bogue & Hall, 2003). The accreditation process developed not from external federal governmental pressures, but from within higher education as demand for quality intensified (Cardozo, 1970). The responsibility for assuring quality in higher education was left with the individual states and accrediting agencies (Bogue & Hall, 2003). The standards, policies, and procedures that are to be followed are created by the accrediting agencies (Thrash, 1979). The agencies then hold institutions and programs accountable for meeting the standards and following the policies and procedures.

Accreditation in higher education institutions began in the early 1900s. The National Association of State Universities met in 1906 to create and implement a set of admission standards and to address articulation issues (Young, Chambers, Kells, & Associates, 1983). Accreditation began as a method to ensure that classes offered at different educational institutions were similar. This allowed for the ease of student movement between institutions (Mood, 1973). In addition, accreditation also addressed student entrance requirements and provided standards that guided the entrance process.

Accreditation of higher education institutions has been influenced by a number of different activities. In response to both external and internal pressures, the accreditation process has adapted and evolved. Beginning in 1914 and continuing until 1948, accredited institutions were recognized by their listing with the Association of American Universities (Young, Chambers, Kells, & Associates, 1983). The Association of American Universities was responsible for conducting on-site inspections of institutions to determine their qualifications for being included on the list of officially accredited schools. When the process became too overwhelming due to the increasing numbers of colleges and universities, the Association of American Universities ceased accreditation efforts. This forced regional accreditation agencies and newly formed professional agencies to increase their involvement in the accreditation of higher education institutions (Young, Chambers, Kells, & Associates, 1983).

Accreditation was influenced in the years after World War II by the creation of two national agencies. The National Commission on Accrediting was created in 1949. It was created by and made up of higher education organizations. Its main goal “. . . was to accredit the accrediting agencies” (Brubacher & Rudy, 2002, p. 360). This agency was charged with establishing the evaluative standards to be followed (Cardozo, 1970), recognizing accrediting agencies (Kneedler, 1975), and controlling “. . . the proliferation of specialized and professional program accreditation” (Young, Chambers, Kells, & Associates, 1983, p. 182). It was also charged with the task of improving the consistency of the accreditation process (Pfnister, 1971). In 1951, leaders from the regional accrediting agencies formed the National Committee of Regional Accrediting Agencies to have an arena in which to analyze shared issues (Young, Chambers, Kells, & Associates, 1983).

From the middle to the latter half of the Twentieth Century, the federal government, through the United States Department of Education, increased its involvement in higher education by imposing governmental pressures on the accreditation process (Cardozo, 1970). This involvement included the provision of funding from the government, new legislation indirectly affecting higher education, and increased costs to institutions as a result of social programs (i.e. the Occupational Safety and Health Administration Act) required by government (Young, 1979). “The ever-increasing number of students seeking entry into an expanding variety of higher educational institutions, to satisfy proliferating employers’ demands and parents’ expectations, has greatly increased public reliance upon accreditation as the primary indicator of educational quality” (Kaplin, 1971, p. 220).

In 1952, the Veterans Readjustment Assistance Act (also known as the Korean War G.I. Bill) created a list of accreditation entities that were officially recognized by the federal government (Proffitt, 1979). The Act required that the Commissioner of the United States Department of Education identify approved accreditation agencies that were deemed reliable for assessing educational quality (Dickey & Miller, 1972). The Act also required that any institution or program seeking eligibility for federal funding be accredited by a formally recognized accrediting agency (Pfnister, 1971). “The status of accreditation agencies changed during that same period from private-voluntary mechanisms to quasipublic regulatory agencies” (Christiansen, 1985, p. 365). This marked the federal government’s official entrance into the realm of higher education quality initiatives.

Another challenge created by the federal government included efforts to increase the number of individuals able to attend institutions of higher education (Thrash, 1979). “The social policies of the early 1960s had improved access to college for many students previously

excluded by virtue of economic situation, logistical problems, or the factors of age, sex, or race” (Hall, 1979, p. 174). The Higher Education Act of 1965 authorized the funding of both higher education institutions and individuals through grants. “Its major emphasis was on a coordinated program to aid the undergraduate student and to cope with the problems created for undergraduate colleges not only by rising enrollments but by the rising aspirations of young people from every social class” (Brubacher & Rudy, 2002, p. 236). Providing financial assistance gave many individuals the opportunity to better themselves through the mechanism of higher education. These social and federal governmental policies also affirmed the quality assurance role of accreditation.

The National Committee of Regional Accrediting Agencies was no longer able to address the growing number of issues faced by the regional agencies. As a result, in 1964, the Federation of Regional Accrediting Commissions of Higher Education was established by the leadership of the regional accrediting bodies (Young, Chambers, Kells, & Associates, 1983). This was an organization representing the regional associations of accreditation and ensuring cooperation and establishment of common standards (Pfinster, 1971).

As federal funding continued into the 1970’s, there was a concerted effort to protect the consumers of higher education. This “consumer protection movement” (Oulahan, 1978, p. 194) was facilitated by two national meetings devoted to the topic and subsequent reports concerning the issue (Proffitt, 1979). This was followed in 1975 by the creation of the Council on Postsecondary Accreditation from the merging of the Federation of Regional Accrediting Commissions of Higher Education and the National Commission on Accrediting, who were responsible for regional accrediting agencies and traditional higher education institutional programs respectively (Proffitt, 1979; Young, 1979). The Council on Postsecondary

Accreditation was responsible for the oversight of accreditation activities and bringing “together accrediting agencies, the public, and the academic institutions in an effort to support, coordinate, and improve the nongovernmental accreditation process” (Elkins, 1983, p. 253). While the Council on Postsecondary Accreditation did not accredit programs and higher education institutions, it assumed a leadership role for accreditation across the country, establishing research initiatives, transparency in the explanation of the accreditation process, and scrutiny of all related accreditation processes (Bogue & Hall, 2003). It was ultimately responsible for providing consistency among accrediting processes (Mahew, Ford, & Hubbard, 1990). It served as the primary coordinating agency for regional and specialized accreditation until its demise in 1993 (Szymanski & Linkowski, 1995).

Traditionally, institutions and programs were judged only on prescribed quantitative standards for quality as established by the professional or regional accreditation agency. During the 1980s, state legislators began to increase their involvement in higher education through requirements for data that assessed student outcomes (Lubinescu, Ratcliff, & Gaffney, 2001). Individual states began requiring reports of student outcomes and provided subsequent funding based on the results (Lubinescu, Ratcliff, & Gaffney, 2001). These modifications restructured accreditation, enhancing the established process (Kassebaum, 1990). The demand for accountability was a direct result of the many stakeholders with an interest in the quality of higher education institutions and professional programs (Cisneros-Blagg & Scanlan, 1986). “Pressure and criticism from the public in general, and the educational sector in particular, have effected a significant change in orientation; accreditation standards have generally become more qualitative, less prescriptive, and increasingly supportive of educational innovation and

flexibility” (Cisneros-Blagg & Scanlan, 1986, p. 95). These external community pressures resulted in a profound change in the accreditation process.

As internal and external stakeholders began to demand accountability of higher education institutions, increased standardization of accrediting bodies, and broader evaluative mechanisms, the Council on Postsecondary Accreditation became structurally and financially unable to respond and was subsequently disbanded (Bogue & Hall, 2003). The dissolution of the Council on Postsecondary Accreditation in the early 1990s came during a time of severe criticism and mistrust of accreditation (Weithaus, 1993b). In 1992, the Amendments to the Higher Education Act of 1965 were enacted (Tanner, 1996). These increased the United States Department of Education specifications that accreditation agencies were required to meet. The Amendments also sought to create standardization among the accreditation agencies (Bogue & Hall, 2003). As federal monies were diverted away from higher education due to defaults on student loans and low quality educational institutions, more responsibility fell on the institutions for funding (Tanner, 1996). In addition, in order for an accrediting body to be recognized by the Secretary of Education it could not be connected to a member organization or trade organization (Weithaus, 1993b).

In 1996, the not-for-profit Council for Higher Education Accreditation was established and charged with the coordination of accreditation (Bogue & Hall, 2003). The Council for Higher Education Accreditation is the primary agency responsible for addressing national accreditation matters (Bogue & Hall, 2003). It is “a private (nongovernmental), institutional membership organization that scrutinizes the capacity of accrediting bodies to assure and improve the academic quality of institutions and programs, based on Council for Higher Education Accreditation standards” (CHEA, 2006a, p. 23). In partnership and conjunction with

the United States Department of Education, the Council for Higher Education Accreditation works to identify and recognize quality and encourage continued self-evaluation and improvement of higher education institutions and programs (CHEA, 2006d).

### *Types of Accreditation*

There are two main types of accreditation, including regional or institutional, and specialized or program (Baker, 2004). Each is discussed in the following sections.

*Institutional Accreditation.* Institutional, or regional, accreditation involves accrediting colleges and universities within specific geographic areas of the United States (Wimer, 2005). Institutional accreditation agencies were initially created to respond to issues regarding uniform guidelines for higher education institution entrance criterion (Brubacher & Rudy, 2002).

“Regional accreditation is grounded in traditional academic values of self-regulation, academic integrity, and collective responsibility” (Baker, 2004, p. 4). These agencies began with the mission of working with high schools and other college preparatory schools. Over time, institutions of higher education also became a focus. “Gradually, from the turn of the century to the end of World War II, these accrediting agencies took on more responsibilities, including the quality review of secondary schools, colleges, and universities; the publication of lists of accredited institutions; and the provision of some accreditation-related services for member institutions” (Mahew, Ford, & Hubbard, 1990, p. 211).

There are six different institutional accrediting agencies, including New England Association of Schools and Colleges, Middle States Association of Colleges and Schools, Southern Association of Colleges and Schools, North Central Association of Colleges and Schools, Western Association of Schools and Colleges, and Northwest Association of Schools and Colleges (Elkins, 1983; Bogue & Hall, 2003). Each agency accredits institutions within a

**Table 4: Regional Accreditation Agencies**

Regional Accreditation Agencies	Date of Creation	Member States/Regions
New England Association of Schools and Colleges	1885	Connecticut, Maine, Massachusetts New Hampshire, Rhode Island, Vermont
Middle States Association of Colleges and Schools	1887	Delaware, District of Columbia, Maryland, New York, New Jersey, Pennsylvania, Puerto Rico, US Virgin Islands
North Central Association of Colleges and Schools	1895	Arkansas, Arizona, Colorado, Iowa, Illinois, Indiana, Kansas, Michigan, Minnesota, Missouri, North Dakota, Nebraska, Ohio, Oklahoma, New Mexico, South Dakota, Wisconsin, West Virginia, Wyoming
Southern Association of Colleges and Schools	1895	Virginia, Kentucky, North Carolina, South Carolina, Texas, Florida, Louisiana, Mississippi, Alabama, Tennessee
Northwest Commission on Colleges and Universities	1917	Alaska, Idaho, Montana, Washington, Nevada, Oregon, Utah
Western Association of Schools and Colleges	1924	California, Hawaii

(Mahew, Ford, & Hubbard, 1990; NEASC, 2007; MSACS, 2007; NCACS, 2007; SACS, 2007; NWCCU, 2007; WASC, 2007)

specific area of the United States (See Table 4).

The face of accreditation has evolved in response to the times. Regional accreditation agencies traditionally accredited only colleges and universities. In the latter half of the Twentieth Century, there was an increase of non-traditional educational institutions, programs, and courses of all types, functions, and sizes that were accredited, including “. . . proprietary schools, technical/vocational institutes, and freestanding professional institutions” (Young, 1979, p. 133). This also included private corporations offering their own educational courses for employees.

*Program Accreditation.* Program accreditation involves accrediting individual programs within education institutions (Roberts, Grimes, Moseley, & Bruhn, 1984a; Wimer, 2005). It is



sometimes referred to as specialized or professional accreditation (Young, Chambers, Kells, & Associates, 1983). “Specialized accreditation is granted primarily to programs that offer entry-level curricula in professional and technical fields” (Stull, 1989, p. 426). In contrast to the six regional accreditation agencies, there are countless specialized accreditation agencies that cover a wide range of professional fields. The agencies that provide this accreditation have been formed at the national level, either by institutions or by professional organizations (Young, Chambers, Kells, & Associates, 1983). Specialized accreditation is ultimately responsible for assuring the quality of individual programs positioned within colleges and universities. The development of standards and guidelines and the overall process of program accreditation mirrors that of regional accreditation.

#### *Accreditation Process*

Seeking, achieving, and maintaining accreditation is a dynamic process that occurs cyclically over time. Both institutional and programmatic accreditation have common elements. The process is based heavily on self evaluation, peer review, compliance with standards, stakeholder feedback, and comparisons to similar programs. Institutional resources are examined, including library facilities, faculty qualifications, and financial capacity (Troutt, 1979). “All accreditation programs in U.S. higher education include a common set of components: self-study, preparation of documentation, on-site peer evaluation, presentation of findings in report format, decision-making regarding accreditation status, and ongoing periodic review, updates, and reporting” (Gelmon, 1997, p. 120). Further, accreditation is a process that promotes achievement, quality, and maintenance of minimal standards (Miller & Boswell, 1979). “The process provides an opportunity for the institution or program to systematically reassess its mission and objectives and to evaluate how effectively it is meeting them” (Stull, 1989, p. 426).

Essential elements in the accreditation process include goals, outcomes, resources, and the assurance of continued resource supply for the program or institution (Fauser, 1992).

Specialized accreditation guidelines enable programs to compare themselves to programs of similar type, structure, and purpose. The main focal areas included in the guidelines include sponsorship, program goals, resources, and student and graduate evaluation and assessment (CAAHEP, 2006).

The pillars of accreditation include the program self study and the peer review process (Young, 1979). The self study component was first required of accreditation agencies in 1974 by the United States Department of Education (Macpherson, 1979). The self study requires the institution or program to evaluate itself based on established standards and criteria. Each facet of the institution or program is scrutinized in the self study. “The self-study component involves an intensive review and assessment of the school’s mission and goals, instructional programs, research and service activities, organizational structure, governance processes, faculty and student composition, resource base, and internal procedures for monitoring progress toward goals and objectives” (Kennedy, Moore, & Thibadoux, 1985, p. 176). Some regional accreditation agencies require additional compliance standards. The Southern Association of Colleges and Schools, for example, requires the development of a Quality Enhancement Plan. Each institution is charged with creating, supporting, and implementing a Quality Enhancement Plan as a component of the accreditation process. The Quality Enhancement Plan links student outcomes with institutional mission. Each area of the university is responsible for contributing to the Quality Enhancement Plan process. It is then included in the institution’s self study and is subsequently incorporated into the mission and daily functioning of the institution.

According to Mahew, Ford, & Hubbard (1990), there are three types of self studies. The one most frequently used is the comprehensive self study. This is an introspective look into the institution's or program's history, processes, and activities. The second type of self study involves the review of the institution as a whole, but it is augmented by a specific study and description of certain unique aspects of the institution. The last type of self study is a comprehensive review that is performed at a specific time to investigate issues specific to the institution. This type of self study is seldom utilized.

Surveys play an important role in accreditation. Surveys are distributed to current students, faculty, alumni, employers of recent graduates, advisory board members, and other affiliated stakeholders. The feedback received from the stakeholders provides useful insight into the effectiveness of the program and guides the self-improvement process (Fauser, 1992; Van Ort & Townsend, 2000). "Alumni satisfaction with the educational program is an important indicator of program effectiveness" (Van Ort & Townsend, 2000, p. 334). The survey results are included as part of the accreditation self study and help guide improvements within the institution or program.

The self study is prepared by the representatives designated by the institution or program and is submitted to the accrediting agency well before the site visit. Then the selected site visitors are provided a copy for review (Mahew, Ford, & Hubbard, 1990). The self study is reviewed by the site visitors to ensure that each section of the standards and guidelines are being met or exceeded. This self study review guides the site visitors' data collection process during the site visit in order to verify how well the standards are being followed and achieved.

Site visitors are usually volunteers from around the country who serve as peer reviewers for the institution or program being accredited (CHEA, 2006a). Site visitors are made up of

various faculty, content experts, and administrators. “Faculty members drawn from a variety of institutions and professional backgrounds are asked to assess the quality of the learning that has occurred” (Miller & Boswell, 1979, p. 223). Site visitors typically must complete an application process, attend training workshops, and be mentored by experienced individuals on multiple site visits before being permitted to be a site visit team leader. Site visitors are selected by the accrediting agency for the specific visits. The site visit serves as peer review for the institution or program involved (Lubinsecu, Ratcliff, & Gaffney, 2001). This peer review aspect of accreditation works to encourage institutions and programs to improve both their processes and outcomes (Uehling, 1987).

During the site visit, which lasts two to three days on average, the site visitors interview a selection of program or institution stakeholders. This includes, but is not limited to, faculty, students, administrators, employers of recent graduates, and alumni. A rigorous schedule for interviews and data collection is followed. “Accreditation teams test the veracity of the self study and look for areas that require improvement. . .” (CHEA, 2006c, p. 4). The completion of the site visit involves a meeting to present the site visitors’ final report to the program and institutional representatives. Site visit findings, strengths and weaknesses, and recommendations are reviewed. Once the site visit is complete, the site team completes and submits the final report to the accreditation commission.

Each accreditation body has a commission that includes individuals from the faculty ranks, from higher education administration, and from the general public (CHEA, 2006a). The accreditation commission typically meets annually or semiannually. At the commission meetings, previous site visit reports and recommendations are reviewed. The commission makes the final determination about accreditation status for the program or institution (Mahew, Ford, &

Hubbard, 1990). Sanctions may be placed on the institution or program if standards are not met (Robiner, Langer, Howe, Ziegler, & Erlandson, 1999). If any areas of weakness or deficiency are noted after the review of the self study and the subsequent site visit, the program has a prescribed amount of time to address these issues. Failure to remedy deficiencies may result in sanctions, including probation or even revocation of accreditation.

Once the accreditation or reaccreditation process is complete, the accreditation agency observes and guides the institution or program until the next reaccreditation process begins. The detailed self study process and site visit are cyclical, requiring programs and institutions to participate after an established number of years in order to continue accreditation status (US DOE, 2006).

#### *Accreditation Stakeholders*

Accreditation affects numerous external and internal entities. Each of these brings their own unique array of expectations to the accreditation arena (Thrash, 1979). Following the link of accreditation to federal funding in higher education, the public began to demand evidence that their money was being appropriately spent (Proffitt, 1970). In an era where federal and state resources for higher education are increasingly limited, stakeholders are demanding greater accountability for monies distributed to institutions (Kneedler, 1975). These stakeholders include, but are not limited to, the institution, program, students, employers, community and taxpayers, boards of directors, trustees, state and federal agencies, legislatures, professional organizations, and consumers of health care (Dickey, 1970).

Accreditation affects everyone associated with the institution, including programs, trustees, faculty, students, and administrative employees. Once a program or institution is accredited, it signals to stakeholders that the program or institution has met rigorous quality

standards, has created a well delineated plan for continued improvement in the future, and has exhibited the means to carry out the plan (Bogue & Hall, 2003). As competition has increased for quality faculty members, students, funding, and research opportunities, accreditation has provided a means for determining educational quality and provided a level playing field for attracting these individuals and resources.

Institutions of higher education and associated accreditation practices serve society as a whole. In health education programs in particular, the public is an important stakeholder as the direct recipient of the outcomes or products of the programs (Millard, 1984). “The ultimate purpose of accreditation of medical education is to improve the quality of health care” (Davis & Ringsted, 2006, p. 306). Stakeholders also demand that graduates of medical programs meet certain entry-level standards and competencies. “A renewed emphasis on clinical competence and its assessment has grown out of public concerns about safety, efficacy, and accountability of health care in the United States” (Goroll, et al, 2004, p. 902). Accreditation of health education programs signifies to consumers of health care that the graduates of these programs have achieved these entry-level criteria.

Students and their parents or guardians are key stakeholders of accreditation. Accreditation signals the achievement of quality and prestige. Many times, this helps individuals select the program or institution in which they will invest their time and money. In addition, students attending accredited programs or institutions know that their earned credits earned will be accepted by other programs and institutions and will not be lost in the transfer, causing previously completed courses to be repeated (Bogue & Hall, 2003).

Accreditation serves a profession as a whole. “The profession is an obvious stakeholder in accreditation of professional programs as it drives and, to a large extent, controls the process”

(Cusick & Adamson, 2004, p. 139). It is an indicator that an area of expertise is actually considered a profession and has professional status. Bogue and Hall (2003) argue that accreditation safeguards professions by establishing guidelines to follow in preparing individuals to practice, permitting individuals to participate in accreditation and the quality improvement practice, and enhances collaboration between all involved in accreditation and the profession.

Another set of stakeholders are the employers of the graduates of accredited programs. Accreditation signifies that the graduates have achieved a minimal level of competence and are adequately prepared to begin work in the field. This provides them with a baseline knowledge of the abilities of the individuals they hire.

Finally, federal, state, and local governments are stakeholders of accreditation. Accreditation is a rubric by which legislatures determine the programs to be funded. It also guides regulatory decisions concerning certain professions. Program accreditation also benefits state agencies, ensuring uniform standards are being followed.

### *Accreditation Criticisms*

Accreditation has long been subjected to criticisms. There are many different definitions and perceptions of quality. Over the past few decades, accreditation has come under scrutiny from a myriad of factions for a number of different reasons. Dickey (1970) lists the “six outstanding evils of accrediting” as a proliferation of agencies, excessive duplication, extravagant costs, focus on quantitative data, control by external factions, and functions that undermine academic freedom.

A prominent criticism of accreditation is that of the apparent change of status from voluntary to mandatory. “When institutional eligibility for receipt of federal funding was attached to regional accreditation, the voluntary nature of such accreditation became largely

involuntary” (Lubinescu, Ratcliff, & Gaffney, 2001, p. 11). These financial accreditation issues have proliferated, in part, as a result of a diminishing supply of resources (Ewell, 1994).

Traditional accountability of higher education institutions was focused on public utilization, concentrating on access and efficiency. As resources became more limited, the accountability focus of accreditation shifted to the return on investment or the outcomes of education. Another related issue is that private organizations evaluate and regulate programs and institutions that are federally funded. In addition, Thrash (1979) adds that the federal government’s dependence on accreditation to signify and identify quality institutions and programs has challenged the overall process.

Some external stakeholders view accreditation as a club to which institutions hold a membership (Proffitt, 1970). Koerner (1994) describes accreditation as a back scratching exercise as peers take care of each other, earning “membership” through the accreditation process. In addition, the perceived subjective nature of the site visits weakens the perception of accountability.

Pfnister (1971) calls accreditation a “nuisance” to the regular functioning of the institution. The time spent preparing for the accreditation self study and the site visit detract from the day-to-day academic processes (Robiner, Langer, Howe, Ziegler, & Erlandson, 1999). Baker, Morrone, and Gable (2004) suggest that specialized accreditation projects outside requirements onto programs while ignoring daily institutional requirements.

Another criticism asserts that there is inherent duplication of processes between institutional and program accreditation agencies (Baker, Morrone, & Gable, 2004; McGuire, Foley, Gurr, Richards, & Associates, 1983). This is especially true of institutions with allied health divisions that must achieve accreditation of the institution as a whole and accreditation of



the numerous individual allied health programs within that division (Gelmon, 1997). The result is an increase in cost and in time spent on the accreditation process. Negative aspects of the accreditation process include multiplicity of accreditation, preparation time, fees, data of little significance, and the frequency of the re-accreditation process (Schermerhorn, Reisch, & Griffith, 1980).

A common criticism of accreditation is the excessive cost involved with the process. Cost may include money, time, and resources. Tanner (1996) identifies questionable cost effectiveness of accreditation as a related criticism. Burke (2003) describes the accreditation process as “labor intensive”, detailing the preparation time necessary to achieve accreditation status (p. 45). Ginzberg (1972) lists similar criticisms of accreditation including the excessive cost, the time and effort that must be diverted away from teaching responsibilities, the stifling of innovation, the duplication of efforts, and the conformity that accreditation forces on institutions and programs. “. . . [A]ccreditation is often viewed as a regulatory, bureaucratic, potentially punitive and time-consuming activity that occurs at a stated point in time” (Gelmon, 1996, p. 213). After surveying allied health departments of junior and community colleges in Texas, Roberts, Grimes, Moseley, and Bruhn (1984b) discovered that as accreditation of allied health programs proliferated, the amount of time educators were required to dedicate to the process increased dramatically. “Concerns about accreditation include its high cost, fragmentation, process-orientation, lack of representation of nonprofessionals on accreditation bodies, an emphasis on professional independence, and the lack of evidence to support standards” (Bruhn, 1993, p. 336). The excessive cost of accreditation includes financial and other resources that detract from the day-to-day responsibilities of individuals, programs, and institutions.

Stifling innovation, creativity, and change is yet another criticism of accreditation (Gelmon, 1997; Mood, 1973). Educational institutions are required to adhere to set standards. Critics believe that straying too far from this risks the loss of accreditation status. Gelmon (1996) lists the rigid structure of accreditation as impeding inventive and imaginative methods in educational development.

In a recent report, the American Council of Trustees and Alumni attacked accreditation, stating that “accreditation does nothing to ensure educational quality” (ACTA, 2007, p. 5). This report delineated numerous criticisms of accreditation. First, accreditation contradicts the diversity and autonomy of educational institutions through the excessive standards and compliance requirements. Second, accreditation is expensive. Third, accreditation has a monopoly on education that is supported by the federal government. Fourth, accreditation is a process shrouded in secrecy because institutional ratings are routinely not made public. Finally, accreditation is a club or back-scratching exercise. The report makes policy recommendations to address these issues. These include severing the connection between accreditation and federal student funding, removing the monopoly by bidding for accreditation agencies, making all accreditation reports public knowledge, redesigning the reaccreditation process, and decreasing and controlling the cost of accreditation.

There are many misconceptions and misunderstandings of accreditation. In defense of accreditation, Kirkwood (1973) discusses specific myths associated with the accreditation process. Kirkwood argues that accreditation is not an endpoint, but a continual process where an entity, either a program or an institution, continually and cyclically reexamines its processes. Another myth describes the accreditation process as a bureaucracy. Kirkwood dispels this by describing the structure of regional accreditation commissions and by describing the voluntary

nature of individuals serving on committees. Another misconception involves the number of doctorate-prepared faculty members associated with an institution or program and their effect on accreditation. “[E]valuation teams are concerned with the relevance of the faculty member’s professional preparation and expertise to the assignment he holds” (Kirkwood, 1973, p. 214). These misconceptions shed negative light on the accreditation process, shrouding it in myths, diminishing its utility, and ultimately scarring the face of the process.

Young (1979) argues that many of the criticisms are the result of a lack of communication between the public and other stakeholders and those directly involved in performing accreditation and an overall lack of understanding of the process. Despite the numerous criticisms, accreditation serves in several different critical roles in higher education.

#### *Accreditation Roles*

Accreditation plays numerous roles in educational quality. Accreditation “is built on the premise and the promise of mission integrity and performance improvement” (Bogue, 1998, p. 10). According to Uehling (1987), the three main roles of accreditation are to ensure quality, to gather data about the institution or program, and to assist in continual improvement. Young (1979) argues the two main areas of focus for accreditation are “educational quality” and “institutional integrity” (p. 134). Benefits of accreditation include an indication of quality for the stakeholders, a sense of pride in being recognized by peers, external motivation for continual self-assessment and improvement, eligibility for governmental funding, and it allows for faculty and staff to volunteer as site visitors for the accreditation of like institutions (DETC, 2002). Overall, accreditation serves as validation or indication of quality, serves and protects society, preserves public trust in higher education, determines eligibility for funding from many sources,

ensures transfer of credits, creates a sense of pride and prestige, encourages self-regulation, serves and protects the profession, and promotes transparency of actions.

Miller and Boswell (1979) list validation as the main purpose of accreditation. It serves as a stamp of approval to the stakeholders. Accreditation delineates specific, defined, and transparent guidelines for quality. “The essential purpose of accreditation is to assure the prospective student and the public that necessary standards of quality are being satisfied” (Stull, 1989, p. 430). Accreditation provides information about the program of study and its ability to obtain articulation agreements between institutions. This ensures that student educational credits can be transferred fluidly between institutions. The Council for Higher Education Accreditation asserts that accreditation indicates the possession of excellence in the areas of academic quality, value for money, efficiency and effectiveness, student protection, and transparency of educational activities (CHEA, 2006b). Accreditation signals to those outside of the institution or program that specific, minimum standards have been met. “Employers, students, and other third parties perceive accreditation as adding value to the educational credentials the institution awards” (Miller & Boswell, 1979, p. 219). This promotes public trust in the accredited program or institution.

Accreditation protects the consumers of education. Accreditation is a service to society, delineating institutions and programs that have met predetermined quality standards (Ginzberg, 1972). “Society holds higher education accountable for providing evidence that students are receiving the maximum yield possible from their personal, financial, academic, and emotional investment” (Lubinescu, Ratcliff, & Gaffney, 2001, p. 10). The connection between higher education and the community is symbiotic. The public sector uses accreditation as a sign that the matriculating individuals have been exposed to an institution or program of minimally acceptable

quality (CHEA, 2006d). “Added to the burden of ensuring that citizens can entrust their lives to the graduates of our institutions is the burden of providing appropriate incentives to help institutions change so as to meet requirements and demands of a rapidly proliferating and changing society” (Hunt, 1970, p. 602). Individuals are assured a minimum level of quality of their education program or institution. Accreditation has great societal value. “The social utility model of higher education emphasizes access to educational opportunities to foster personal growth and development in the belief that society as a whole benefits from the aggregation of realized individual human potential” (Baker, 2004, p. 1). It is responsible for protecting the public from substandard institutions, programs, and individuals (Dickey, 1970; Spence, 1975).

Accreditation also assists in funding decisions. Accreditation receives its funding from a number of sources, including the annual fees paid by member institutions and programs, site visit fees paid by member institutions and programs, funding from sponsoring entities, and occasionally from the government and private organizations (CHEA, 2006a). This makes private donations of significant importance. Accreditation assists private individuals and organizations in their decision-making process and subsequent selection of educational program or institution for financial donations (CHEA, 2006a). As resources have dwindled, competition has intensified among higher education institutions for students, money, and prestige (Lubinescu, Ratcliff, & Gaffney, 2001).

The accreditation process has also served as a mechanism for strengthening institutional competitiveness (Lubinescu, Ratcliff, & Gaffney, 2001). Accredited institutions and programs typically are more likely to attract high quality students and faculty members. Accreditation provides a sense of pride and signals prestige and recognition by all related stakeholders that quality has been ensured.

Accreditation ensures the ease of transfer of course credits from institution to institution. It ensures that courses meet minimal standards and are similar enough for transfer to another accredited institution (CHEA, 2006a). It does this while simultaneously encouraging diversity in institutional mission and outcomes. In addition, accreditation ensures that students may transfer from one institution to another seamlessly (Simpson, 2004).

Accreditation serves as a catalyst for both self-regulation and self-improvement of institutions and programs (Gelmon, 1997). “Self-regulation assures self-responsibility, builds pride, and has been instrumental in creating the unparalleled intellectual accomplishment of our society” (CHEA, 2006c, p. 9). Accreditation should be responsive and adaptive to changes in the respective fields of study. “Regular, systematic, and cyclical reviews help institutions to monitor the strengths of their system continuously, with a particular focus on the types of improvements made after each evaluation cycle” (Lubinescu, Ratcliff, & Gaffney, 2001, p. 18.)

A key function of accreditation is to control entry of competent individuals into their respective fields (Cusick, 1999). “In order to facilitate the linkage between educational preparation and licensure, student outcomes should be tied to professional competencies for entry into practice” (Gelmon, 1996, p. 217). Accreditation assists society by establishing minimal standards and guidelines for individuals to be able to practice within a specific profession (Kennedy, Moore, & Thibadoux, 1985). This protective mechanism provided by accreditation limits entrance into the profession (Kennedy, Moore, & Thibadoux, 1985). “[A] profession has a social responsibility to assure society that its present and future membership will be adequately educated and prepared to assume those responsibilities which society expects of the profession” (Dickey, 1970, p. 591). This ensures a minimum level of competency for individuals entering respective fields of employment.

For founding programs in new and developing areas, accreditation can assist in the progression towards the area being recognized as a profession (Proffitt, 1970). “Professions need accreditation for a number of reasons: professional status; evaluation of practitioner competence; and the demonstration of accountability to safeguard the public’s trust” (Cusick & Adamson, 2004, p. 134). Additionally, accreditation promotes the vocation or industry, of advancement of individuals within the profession, assistance with individuals achieving professional credentialing, federal financial support, and stakeholder advocacy (Gelmon, 1996).

One of accreditation’s most valuable roles in higher education quality assurance is to provide transparency of policy and action. Accreditation holds programs and institutions accountable for quality assessment and continuous quality improvement and promotes transparency of actions to all related stakeholders. Ewell (1994) maintains that the self-regulation of academic institutions and programs must include the values of “academic integrity and collective responsibility” (p. 28). In the realm of public policy, accountability decisions have been encouraged due to a lack of resources (Ewell, 1994). Ewell (1994) argues that activities of self-regulation must include public recognition and affirmation of academic quality and institutional assurance of espousing academic ideals.

### *Accreditation in Health-Related Fields*

Most health related-fields have embraced accreditation as a quality assurance practice within their respective education programs. This section will review the evolution of accreditation within specific health-related fields, including medical schools, nursing, physical therapy, allied health, and EMS.

#### *Medical School Accreditation*

The evolution of medical education accreditation paralleled that of higher education. Accreditation in health care began in the early 1900s in the field of medicine. The American Medical Association was formed in 1846 by physicians concerned about the quality within the profession of medicine (CME, 1983). This was followed in 1904 by the American Medical Association's creation of a group that was responsible for scrutinizing medical schools. The goal of this group, the Council on Medical Education, was to enhance the quality of medical schools (Kneedler, 1975) and to redesign the medical curriculum (Beck, 2004). It began evaluating and ranking medical schools in 1906 (CME, 1983). In collaboration with the Carnegie Foundation for the Advancement of Teaching, in 1909, Abraham Flexnor, a non-medical outsider, began evaluating all of the medical schools in the United States and Canada (CME, 1983). The Flexnor Report was released in 1910, greatly impacting the quality of medical schools. This report identified medical schools that were of substandard quality and, subsequently, led to many closings (Bogue & Hall, 2003).

Quality efforts in medical education and medical residency programs continued through the formative years of the Twentieth Century. Since 1946, the Liaison Committee on Medical Education has accredited medical schools at the undergraduate level (Bogue & Hall, 2003). Accreditation from the Liaison Committee on Medical Education is required in order for medical schools to receive federal funding in the form of grants or student loans (LCME, 2007). The Liaison Committee on Graduate Medical Education was organized in 1972 with the charge of the evaluation and accreditation of medical education and residency at the graduate level (CME, 1983). Three years later, the Liaison Committee on Graduate Medical Education accredited its first medical residency program. Its name was changed in 1981 to the Accreditation Council for Graduate Medical Education (CME, 1983; Goroll, et al, 2004). The Accreditation Council for



Graduate Medical Education continues to accredit medical residency programs in 120 different specialty and subspecialty areas of medicine (ACGME, 2007).

In medicine, accreditation is directly linked to licensure. In order for medical school graduates to take the board licensure exam, they must graduate from a nationally accredited medical school.

Accreditation agencies have been established to address quality issues in continuing education for health care providers. The Accreditation Council for Continuing Medical Education accredits continuing education for physicians (Simon & Aschenbrener, 2005). This was originally organized in 1972 as the Committee on Continuing Medical Education and was renamed the Liaison Committee on Continuing Medical Education in 1977. The American Medical Association agreed to the final name change to Accreditation Council for Continuing Medical Education in 1981 (CME, 1983). “Continuing medical education consists of educational activities which serve to maintain, develop, or increase the knowledge, skills, and professional performance and relationships that a physician uses to provide services for patients, the public, or the profession” (ACCME, 2006, p. 2). In order to obtain recredentialing of licensure or certification, health care providers are required to attend a specified number of continuing education hours each year. This education can be obtained from a number of venues, including higher education institutions, independent education entities, and medical conferences. Course providers must apply to, and the courses must be approved by, respective accreditation agencies in order to be eligible for use in the recredentialing process.

### *Nursing Accreditation*

Nursing accreditation developed similarly to that of medicine. It dates to 1893 when the American Society of Superintendents of Training Schools for Nursing was formed (NLNAC,

2007). The first accreditation of training programs in nursing began in 1938 (NLNAC, 2007). The National League for Nursing was created in 1952 and was responsible for accrediting all levels of nursing education programs, including associate degree, baccalaureate, diploma, and practical nursing programs (Bellack, Gelmon, O'Neil, & Thomsen, 1999; Overbay & Aaltonen, 2001).

The Nurse Training Act of 1965 created much strife between nursing educators and their respective institutions. This act implemented mandatory nursing program accreditation in addition to the already required institutional accreditation in order to receive federal funding (Proffitt, 1979). The Act also provided funding for construction projects, training of nurses, student loans, and grants for programs (Boyle, 1965). In 1968, the Health Professions Services Act reversed the nursing program required accreditation mandate and instead recognized individual state entities as substitutes for funding approval (Proffitt, 1979).

From 1952 to 1998, nursing had a single accrediting body, the National League for Nursing (Bellack, Gelmon, O'Neil, & Thomsen, 1999; Burke, 2003). In 1996, the National League for Nursing came into question by the United States Department of Education in regards to its accreditation criteria. This was a direct result of the 1992 Amendments to the Higher Education Act. The United States Department of Education added the requirement of documenting information about student loans and any defaults by individuals. Additionally, any structural or organizational changes made by the institution required notification to the United States Department of Education. The National League for Nursing regarded the changes as a move from accreditation as a voluntary effort to that of a governmental regulatory process based on the new requirements. Because it did not meet all of the new standards (Bellack, Gelmon, O'Neil, & Thomsen, 1999), the organization was in jeopardy of losing its accreditation status

(Tanner, 1996). The National League for Nursing Accrediting Commission was created in 1996 to address the aforementioned issues (Overbay & Aaltonen, 2001). The National League for Nursing Accrediting Commission accredits all levels of nursing programs, including masters, baccalaureate, associate, diploma, and practical nursing (NLNAC, 2007). The National League for Nursing added performance indicators to the self study outcomes in the early 1990s. This included outcomes data of graduate performance on the National Council Licensing Examination (Gropper, 1996).

The American Association of Colleges of Nursing was created in the mid-1970s and included in excess of 500 baccalaureate and graduate nursing programs. The American Association of Colleges of Nursing formed a taskforce in 1996, charged it with reviewing all aspects of the accreditation process, and asked it to determine the level of involvement that the American Association of Colleges of Nursing should undertake (Bellack, Gelmon, O'Neil, & Thomsen, 1999). Based on the taskforce's recommendation, the Commission on Collegiate Nursing Education was formed in 1996 by the American Association of Colleges of Nursing, and it started accrediting nursing programs in 1998 (Overbay & Aaltonen, 2001). Its mission was to accredit only baccalaureate and graduate programs in nursing (Bellack, Gelmon, O'Neil, & Thomsen, 1999). "Commission on Collegiate Nursing Education ensures the quality and integrity of baccalaureate and graduate education programs preparing effective nurses" (CCNE, 2007). It also provided a new type of accreditation process ". . . for assessing the quality of nursing programs while welcoming flexibility and innovation in those programs" (Van Ort & Townsend, 2000, p. 331) and created competition among nursing accreditation agencies (Overbay & Aaltonen, 2001). The goals were to challenge educational programs to be accountable for all identified constituents, use the self-stated mission, goals, and subsequent

outcomes as specific evaluation points, ensure continued quality improvement, and play an active role in educating the public about the importance of program accreditation (Van Ort & Townsend, 2000). The addition of Commission on Collegiate Nursing Education's new accreditation process afforded undergraduate nursing programs a choice between accreditation agencies.

As in medicine, nursing licensure is linked to accreditation of educational programs. Nursing graduate schools require that applicants graduate from an accredited nursing program. Additionally, professional nursing organizations stipulate that individuals must graduate from accredited programs before being permitted to take the National Council Licensure Exam and being eligible for specialized credentialing (Overbay & Aaltonen, 2001).

Like medical and nursing education programs, other allied health education programs developed accreditation entities in response to the increased demand for accountability.

#### *Physical Therapy Accreditation*

In 1921, the American Women's Physical Therapeutic Association was formed as the first physical therapy professional organization. The organization was renamed the American Physiotherapy Association in the late 1930s and began allowing men to join. The organization changed its name for the final time to the American Physical Therapy Association at the end of the 1940's. The mission of the American Physical Therapy Association is to “. . . further the profession's role in the prevention, diagnosis, and treatment of movement dysfunctions and the enhancement of the physical health and functional abilities of members of the public” (APTA, 2008). The growth of the physical therapy profession was augmented by both injured soldiers from World War II and the polio outbreak during the 1940s.

From 1928 to 1933, education programs meeting the American Physiotherapy Association's standards were publicly listed in a professional journal. Beginning in 1933, the American Physical Therapy Association required assistance with accrediting physical therapy education programs and subsequently partnered with the American Medical Association. The Council on Medical Education and the American Physical Therapy Association collaborated to create standards for physical therapy education programs (CME, 1983). The American Medical Association assumed accrediting responsibilities from 1936 to 1956. From 1957 to 1976, the American Physical Therapy Association worked closely with the American Medical Association and collaborated on accreditation responsibilities. In 1976, the American Physical Therapy Association severed its link with the American Medical Association, establishing the Commission on Accreditation in Education. The Commission on Accreditation in Education ultimately changed its name to the Commission on Accreditation in Physical Therapy Education. Its mission is to “. . . serve the public by establishing and applying standards that ensure quality and continuous improvement in the professional preparation of physical therapists and physical therapy assistants and that reflect the evolving nature of education, research, and practice” (CAPTE, 2008).

Physical therapy has made dramatic strides in realizing professional status. Physical therapy education programs began in the 1920s as certificate programs to be completed in a nine month period after completion of the baccalaureate degree. By 1970, the certificate programs had transitioned to baccalaureate programs. These began evolving into graduate programs by the late 1960s. By 2002, all physical therapy programs culminated in a master's degree. In addition, in 1996 the first Doctor of Physical Therapy programs were accredited (CAPTE, 2008). This slow, but methodical transition toward professionalism reached its zenith in 2000 when the

American Physical Therapy Association's House of Delegates declared that by 2020, the entry-level degree for practicing physical therapists would be the Doctor of Physical Therapy (Domholdt, Kerr, & Mount, 2006). The Vision 2020 and Strategic Plan for Transitioning to A Doctoring Profession “. . . includes six elements: Doctor of Physical Therapy, Evidenced-based Practice, Autonomous Practice, Direct Access, Practitioner of Choice, and Professionalism” (APTA, 2008a, p. 2). This movement was reinforced in 2006 when the Commission on Accreditation in Physical Therapy Education endorsed the Doctor of Physical Therapy as the required entry level of education for practicing physical therapists (Domholdt, Kerr, & Mount, 2006).

In addition, as in medicine and nursing, accreditation is linked to physical therapy licensure. Only candidates graduating from nationally accredited physical therapy education programs may attempt the national physical therapy licensure examination.

#### *Allied Health Accreditation*

Following the developmental patterns of medicine, nursing, and physical therapy, the need for accreditation in allied health increased in response to the heightened demand for quality health care. In 1933, the American Occupational Therapy Association and the American Society of Clinical Pathologists contacted the American Medical Association requesting assistance in creating educational standards and review processes for their respective professions (Weithaus, 1993a). This was the first step to allied health education program accreditation. Additionally, many allied health fields developed specialized accreditation entities that evaluate programs independently (Bruhn, 1993).

In 1972, the Study of Accreditation of Selected Health Education Programs was released by the American Society of Allied Health Professions and Council on Medical Education in

collaboration with the National Commission on Accrediting (Volker, 1971). The study determined that accreditation focused on the individual accrediting agencies and not the interests of society; that much duplication of efforts existed; that accreditation was expensive; that a lack of data existed confirming the efficacy of the accreditation process; and that the strict nature of the standards were impeding educational innovation (Christiansen, 1985). It made recommendations to continue accreditation of allied health programs and to create a national entity that would be responsible for the accreditation process (Weithaus, 1993a). It also recommended structural changes to the process of accreditation in allied health programs for the purpose of enhancing its efficacy (CME, 1983). Finally, the Study of Accreditation of Selected Health Education Programs concluded that “accreditation of allied health educational programs must promote increased collaboration, cooperation, and coordination among health professions” (Kneedler, 1975, p. 586). This study serves as the foundation for the enhancement of the accreditation process in allied health (McGuire, Foley, Gurr, Richards, & Associates, 1983).

Based on the recommendations of the Study of Accreditation of Selected Health Education Programs, the American Medical Association sponsored the Committee on Allied Health Education and Accreditation in 1976. This allowed the Committee on Allied Health Education and Accreditation to function with more autonomy and facilitated separation from the American Medical Association (Millard, 1984). It was charged with the accreditation of allied health programs (Weithaus & Fauser, 1991) and the periodic evaluation of the accreditation process (Weithaus, 1993a). Several health care professional organizations began to self-accredit beginning in 1976. This was followed by the withdrawal of numerous organizations from the Committee on Allied Health Education and Accreditation. In 1992, the American Medical Association decided to disband the Committee on Allied Health Education and Accreditation and

to cease its involvement with the accreditation of allied health education programs (Weithaus, 1993a). Two years later, the Commission on Accreditation of Allied Health Education Programs was created to succeed the Committee on Allied Health Education and Accreditation (Gelmon, 1997). The Commission on Accreditation of Allied Health Education Programs was designed to meet the specific needs of allied health educational programs and their stakeholders (Weithaus, 1993a). It includes a wide variety of allied health programs, including EMS (See Table 5).

#### *Emergency Medical Services Accreditation*

As in the development of EMS as a profession, EMS accreditation came to fruition within the last quarter of the Twentieth Century. Currently, only one entity is responsible for accrediting EMS education programs. The Joint Review Committee on Educational Programs for the Emergency Medical Technician-Paramedic was established in 1978. The name was later changed to the Committee on Accreditation of Educational Programs for the EMS to address the evolving mission of the agency. It is one of the member agencies of the Commission on Accreditation of Allied Health Education Programs (CAAHEP, 2006). “The mission of the Committee on Accreditation of Educational Programs for the EMS Professions, under the auspices of Commission on Accreditation of Allied Health Education Programs, is to continuously improve the quality of EMS education through accreditation and recognition services for the full range of EMS professions” (COAEMSP, 2007, p. 1).

EMS program accreditation is guided by the *Standards and Guidelines for the Accreditation of Educational Programs in the Emergency Medical Services Professions* (CAAHEP, 2005). The accreditation *Standards and Guidelines* document encompasses the entire realm of the educational structure and process. This accreditation process includes criteria related to sponsorship, program goals, resources, and student and graduate evaluation and



**Table 5: Commission on Accreditation of Allied Health Education Program Accreditations**

CAAHEP Accreditations	Number of Accredited Programs
Anesthesiologist Assistant	5
Cardiovascular Technology	33
Cytotechnology	43
Diagnostic Medical Sonography	150
Electroneurodiagnostic Technology	14
Emergency Medical Services Professions	224
Exercise Sciences	12
Kinesiotherapy	6
Medical Assistants	547
Medical Illustrator	5
Orthotic and Prosthetic	8
Perfusion	21
Polysomnographic Technologists	8
Respiratory Care	351
Specialist in Blood Bank Technology	15
Surgical Assisting	7
Surgical Technology	437

(CAAHEP, 2006)

assessment. EMS education programs seeking accreditation must have the appropriate sponsorship prior to application. The sponsor institution must be either an accredited higher education institution, an accredited hospital or medical care providing entity, a foreign accredited higher education institution, or a military or federal program associated with an accredited higher education institution (CAAHEP, 2005).

Accredited EMS education programs must have clearly stated program goals and expected student outcomes. These goals must be delineated by each specific learning domain (i.e. cognitive, psychomotor, affective). In addition, the *Standards and Guidelines* require consistent assessment of the goals and subsequent outcomes related to education practices. This is accomplished partially through an established advisory committee comprised of members

from the various stakeholders of the program. This committee meets annually to provide feedback and recommendations to the program regarding pertinent issues revolving around quality and improvement (CAAHEP, 2005).

EMS education programs must have adequate internal and external resources to meet the accreditation standards. “Resources include, but are not limited to: faculty, clerical/support staff, curriculum, finances, classroom/laboratory facilities, ancillary student facilities, hospital/clinical affiliations, field/internship affiliations, equipment/supplies, computer resources, instructional reference materials, and faculty/staff continuing education” (CAAHEP, 2005, p. 5). The program must ensure that the clinical and field internship locations have a sufficient variety of patients with certain conditions, ensuring that students will have exposure to adequately diverse patient situations. The *Standards and Guidelines* recommend, but do not require, that a number of specific units within the hospital are visited by all students. These include the operating room for endotracheal intubation practice, the operating room post-anesthesia unit, the cardiac care unit, the labor and delivery unit, and the pediatric-specific units. The program is required to track and monitor the number of times a student completes each identified skill and is exposed to each identified patient condition and age group. In addition, each student must have the ability to serve as the team leader during their field internship rotations. This information must be kept on record and used in the final determination of graduate competence (CAAHEP, 2005).

Program personnel are another resource specified by program accreditation. Each program must have a program director that is ultimately responsible for the overall functioning and administration of the program. Program directors for Emergency Medical Technician-Paramedic programs must have a minimum of a baccalaureate degree to be eligible for the position. The program director must also have field experience at the level at which he or she is

teaching, have a working knowledge of local, state, and national credentialing requirements, and have appropriate teaching experience (CAAHEP, 2005).

Each EMS education program must also have a medical director that is responsible for the oversight of the entire educational process. The medical director is accountable for monitoring student progress, assuring each student's competence upon the completion of the program, and taking an active role in the EMS education program. The medical director must be licensed as a physician in the United States and must be approved to function in the region where the program is located. He or she must also be familiar with EMS, EMS education issues, and local, state, and national EMS regulations (CAAHEP, 2005).

Other associated faculty members or instructors within the program must have the appropriate amount of experience in the field, in the topic content, and in instruction. The *Standards and Guidelines* recommend, but do not require, that each accredited EMS education program employ a coordinator of clinical education. This individual is responsible for the monitoring, organizing, scheduling, and overseeing of hospital clinical and field internship rotations.

The program curriculum is another facet of the resources governed by the *Standards and Guidelines*. Curricular content must address each of the three learning domains. The curriculum must also appropriately embody the Department of Transportation National Standard Curriculum (CAAHEP, 2005).

The final section of the *Standards and Guidelines* addresses student and graduate evaluation and assessment. Students enrolled in the program must be periodically evaluated to assure that they are progressing appropriately through the curriculum. Adequate documentation of these evaluations must be kept in the students' records. The program must also evaluate the

extent to which it is achieving the self-professed goals as evidenced in data related to outcomes assessments. “Outcomes assessments include but are not limited to: exit point completion, graduate satisfaction, employer satisfaction, job placement, state licensing exams and/or national registration” (CAAHEP, 2005, p. 9). These assessments are achieved through a series of surveys and through monitoring program graduates’ state and national examination scores. The results can be scrutinized, areas of weakness identified, and appropriate changes implemented.

EMS continuing education has its own national accreditation entity, the Continuing Education Coordinating Board for Emergency Medical Services. The Continuing Education Coordinating Board for Emergency Medical Services was established in 1992 by a number of national organizations including the American College of Emergency Physicians, the National Registry of Emergency Medical Technicians, the National Association of Emergency Medical Services Physicians, the National Association of State EMS Directors, the National Council of State EMS Training Coordinators, and the National Association of Emergency Medical Technicians. Additionally, the National Association of EMS Educators and the American College of Osteopathic Emergency Physicians joined in 1998 and 2003 respectively (CECBEMS, 2006). One of the goals of the Continuing Education Coordinating Board for Emergency Medical Services is to create a process for standardizing the EMS continuing education components. “The purpose of Continuing Education Coordinating Board for Emergency Medical Services is to develop and implement policies to standardize the review and approval of emergency medical services continuing education activities” (CECBEMS, 2006). The process includes accreditation of individual activities, multiple activities, and distributed learning activities involving all levels and divisions of EMS (i.e. field, management, and education) and of the continuing education organizations sponsoring these activities. The

accreditation components include an application process for the sponsoring organization, an application process for the proposed educational activities, fees specific to the type of educational program involved, and a review by Continuing Education Coordinating Board for Emergency Medical Services reviewers. Specific criteria involving the type of activities and organizations that may apply for Continuing Education Coordinating Board for Emergency Medical Services accreditation are in place. Only activities approved by state EMS agencies or accredited by the Continuing Education Coordinating Board for Emergency Medical Services are accepted by the National Registry of Emergency Medical Technicians, the national certification entity for EMS professionals, for recertification credit.

#### *Future of Accreditation in EMS Education*

As national efforts are under way to standardize EMS education, accreditation of EMS education programs will become the focus. EMS education individuals and entities must recognize quality issues and embrace quality methods to remain competitive in the future. As evidenced by recent accreditation requirements for national certification, accreditation will soon be required of all EMS education programs regardless of their size, composition, location, or orientation with higher education institutions.

#### *Conclusion*

Despite criticisms from numerous factions, accreditation has been and remains one of the best known and best understood instruments of quality assurance and accountability in American higher education. Accreditation is fundamentally linked to professional status and recognition in most professional fields and especially in health care professions. Currently, uneven education preparation and quality are inherent in EMS education. As a result, EMS is moving toward mandating national EMS education program accreditation.

### Chapter III: Methods and Procedures

The purpose of this study was to explore the attitudes and action plans of North Carolina EMS education leaders regarding the impending policy initiative of national EMS education program accreditation. The following research questions were addressed in the study: 1) How do EMS education leaders in North Carolina view the impending policy initiative involving national EMS program accreditation?, 2) Do EMS education leaders in North Carolina plan to seek accreditation?, 2a) If so, what steps have been taken?, 2b) If not, why? This study serves to inform local, state, and national EMS entities and stakeholders about the posture that states not mandating national EMS program accreditation or not participating in the National Registry credentialing process may take in response to the accreditation policy implementation.

#### *Research Design*

##### *Design*

The inquiry employed a case study design utilizing in-depth interviews, field notes, and document analysis. The study involved an in-depth examination of the attitudes and action plans of EMS education leaders in North Carolina in regard to the proposed policy requirement of national EMS education program accreditation.

The subject matter, the research population, and the nature of the research questions were best addressed utilizing a qualitative research design. The small number of participants in the study necessitated a close, focused analysis rather than a broad, sweeping inquiry. Smaller numbers of participants were utilized to gain a greater expanse and depth of data.

### *Methods and Procedures for Data Collection*

#### *Participants*

The study utilized a purposive sample of EMS education leaders in North Carolina. The participants for the study were the current program directors of nine non-accredited AD programs in EMS in North Carolina, including Carteret Community College in Morehead City, Coastal Carolina Community College in Jacksonville, Davidson County Community College in Lexington, Fayetteville Technical Community College in Fayetteville, Gaston College in Dallas, Guilford Technical Community College in Greensboro, Sandhills Community College in Pinehurst, Southwestern Community College in Sylva, and Wake Technical Community College in Raleigh (NC OEMS, 2006).

In addition, the study included two administrative representatives from the North Carolina Office of EMS. The North Carolina Office of EMS is responsible for credentialing EMS providers through the administration of the state certification examination. “The Office of Emergency Medical Services ensures that all citizens have access to quality emergency medical care by providing technical assistance, services and regulatory oversight to all local EMS systems in North Carolina” (NC OEMS, 2007). The two representatives from the North Carolina Office of EMS were selected based upon their positions within their organization, their knowledge about the EMS educational programs in North Carolina, and their expertise in EMS education policy and procedure.

North Carolina was selected as the case to be investigated for convenience reasons. The specific phenomenon of focus was the opinions of EMS educational leaders in North Carolina in regards to the impending policy initiative of mandatory EMS program accreditation. The investigator is familiar with and has access to the participants of the study. A professional

rapport has already been established. Interviews were structured and conducted like a conversation as suggested by Kvale (1996). Professional relationships encouraged candor from the participants.

### *Sources of Data*

Data were collected utilizing three different qualitative methods, including in-depth interviews, field notes, and document analysis.

In-depth interviews allowed the participants to explain their own insights to the investigated phenomenon (Ritchie & Lewis, 2003). “At the root of in-depth interviewing is an interest in understanding the experience of other people and the meaning they make of that experience” (Seidman, 1991, p. 3). In-depth interviews were designed to be both organized and adaptive and, at the same time, provide interaction between researcher and participant (Ritchie & Lewis, 2003).

Field notes included journal entries and Contact Summary Forms (See Appendix A). The field notes were recorded in a bound journal during the participant interviews as questions were posed to the participants. Each set of field notes was recorded in the identical manner with the date, location, and time of day listed at the top of the page. The journal entries detailed descriptions of the interview environment, mannerisms of the participants, and other observations made during the interview.

Document analysis was also utilized in the study. “Documentary analysis involves the study of existing documents, either to understand their substantive content or to illuminate deeper meanings which may be revealed by their style and coverage” (Ritchie & Lewis, 2003, p. 35). Documents can provide deep and powerful supplemental information sources during inquiry (Patton, 2002).



*Methods and Procedures*

Application was made to the University of Tennessee Institutional Review Board. Form B was completed, submitted, and received for approval of the study and the informed consent form prior to contacting the participants. The participants were contacted via an introductory and informational letter (See Appendix B). The letter introduced the author, stated the purpose of the study, and described the interview process. It also included contact information for the participants to communicate with the investigator. Two informed consent forms were included; one for the participant to sign and return and one to keep for his or her records. The form explains the study's purpose and objectives, their role, risks, benefits, confidentiality, and contact information (See Appendix C). An original, signed copy of the Investigator's Pledge of Confidentiality form was included (See Appendix D). A self-addressed, stamped envelope was also sent to facilitate the ease of return of the informed consent form to the investigator.

Once the informed consent form was returned to the investigator, each participant was contacted via phone or email, and an interview was scheduled. In-depth interviews were conducted with consenting participants at each site by the investigator. The order of interviews performed was determined by the convenience of scheduling and travel. The interviews were conducted at the participants' locations. Two interviews took place in empty classrooms. The rest were conducted in the participants' offices. Each interview was approximately one hour in length.

The interviews included questions regarding opinions about national accreditation policy recommendations, amount of accreditation preparation, current program structure, and knowledge of accreditation requirements and processes (See Appendices E & F). The questions were constructed with an open-ended format to allow the participants the freedom to respond

without limitation. Each interview used the same order of questions; however, the interviews were structured to allow for adaptability and flexibility in questioning the participants further if necessary. In an attempt to ensure proper order, length of the interview, and depth of questioning, the interview process was pilot tested on an individual who is familiar with the content, but not associated with the study.

All digitally-recorded interviews were transcribed verbatim by Verbal Ink, a professional transcription service. The interview recordings were transcribed in Microsoft Word documents and emailed to the investigator. Each participant was assigned a random and unique number by the investigator. These numbers were used in the reporting of information to ensure anonymity of the participants and the confidentiality of the source of the data collected. All transcribed interviews are stored on the investigator's computer. Access is password protected and restricted to the investigator alone.

During each interview, notes about the location, environment, and specific interactions with and observations of the participant were made in a bound journal. Nine of the interviews were conducted in the participants' offices. Two were conducted in empty classrooms at the participants' location. Two of the office interviews were conducted while sitting at a table. The notes conclude with additional information and issues gleaned from the respective interviews. Upon completion of the interview and the recording of the field notes in the journal, the investigator also completed a Contact Summary Form as suggested by Miles and Huberman (1994, p. 53). The Contact Summary Form summarized the main ideas gleaned from the interview and identified omitted information. This form is made up of the following categories: 1) main issues or themes, 1) summary of information, 3) other interesting information obtained during the interview, and 4) additional questions to be answered. This form allowed the

investigator to summarize the information and themes extracted during each individual interview. It is a succinct documentation of the main ideas of each interview and the investigator's reflections of the process. The field notes and Contact Summary Forms were edited, interpreted, and transcribed in a Microsoft Word document by the investigator. All transcribed field notes are stored on the investigator's computer. Access is password protected and restricted to the investigator alone.

During the interview process, information contained in specific documents, including existing strategic plans involving accreditation, program goals and objectives, and other program or agency documentation forms, were identified and collected for review and inclusion in the data analysis process.

#### *Data Analysis*

Data analysis occurred throughout the data collection process. Once an interview was transcribed, it was emailed to the respective participant for review, correction, accuracy, and approval. Only minor changes were made to two of the interview transcripts. These included spelling corrections and clarification of participant ideas. Once the reviewed transcripts were returned, data analysis began.

Each transcribed interview was read numerous times by the investigator. The investigator utilized ATLAS.ti, a qualitative data analysis software package, to organize, code, and analyze the data. ATLAS.ti is a qualitative research tool that organizes documents, systematically codes data, text, and images, searches for patterns among the data, and assists in theme building (ATLASTI, 2007). Notes were made by the investigator during each review, placing ideas and topics into categories. As the interviews were read, any repetitive words, phrases, ideas, and issues were marked with a like code. "Codes are tags or labels for assigning

units of meaning to the descriptive or inferential information compiled during a study” (Miles & Huberman, 1994, p. 56). All investigator questions, comments, or ideas were written in the margins of the transcription or added to the memo or comment section of ATLAS.ti as appropriate. Codes were listed out and divided among common ideas. This process was repeated until the common themes were narrowed down to 4 specific categories. The categories were benefits of accreditation, challenges of accreditation, the effect of the National Registry of Emergency Medical Technicians’ decision, and the effect of accreditation on the EMS profession. The investigator developed visual representations of relationships and ideas gleaned from the data. Visual maps of the data were generated, allowing the investigator to conceptually map the relationship between ideas. Finally, the concepts were used to suggest possible themes emerging among the study participants in regards to their attitudes and action plans regarding the proposed policy initiative requiring national EMS program accreditation (Speziale & Carpenter, 2007).

All program director participants were contacted after their interview because of missing information. This included information on continuing education programs, on the number of fulltime and part time faculty members, and the percentage of graduates taking the National Registry of Emergency Medical Technicians’ paramedic examination, additional documentation, and first-time pass rates.

### *Issues of Qualitative Research*

#### *Trustworthiness and Credibility*

A study that is trustworthy can be replicated, generating similar results each time it is performed (Merriam & Associates, 2002). To ensure trustworthiness, “a first requirement is to have a clear understanding of what features of qualitative data might be expected to be

consistent, dependable, or replicable” (Richie & Lewis, 2003, p. 271). Accuracy is the desired outcome when seeking trustworthiness (Mason, 1996). A common concern in reporting and describing data gleaned from a personal interview is the possibility of data that is “incomplete or inaccurate” (Maxwell, 1996). In an attempt to establish trustworthiness, each participant interview was recorded on a digital sound recorder and saved in MP3 file format. Each interview was conducted in the same manner, ensuring consistency of the data gathering procedures. This was performed to eliminate discrepancies in the data collected through the interview process. Upon completion, the interviews were transcribed verbatim by a professional transcription service and were saved as Microsoft Word documents.

A study that is credible achieves what it proposes to achieve, measuring and analyzing the appropriate data in the way that it is designed (Mason, 1996). There are a number of issues that threaten the credibility of a qualitative study. Reactivity, the researcher’s effect on the participants during the data collection process, threatens the credibility of qualitative studies (Maxwell, 1996). In an attempt to address this issue, the investigator constructed research questions that did not lead the participants in a biased direction. The research questions were reviewed by an individual who has extensive experience in qualitative research and in EMS education accreditation. Another potential threat to the credibility of the study involves the investigator’s interpretation of the data. “The main threat to valid interpretation is imposing one’s own framework or meaning, rather than understanding the perspective of the people studied and the meanings they attach to their words and actions” (Maxwell, 1996, p. 89-90). A bracketing interview was performed to address this issue.

The investigator completed a bracketing interview prior to interviewing the participants. “A bracketing interview brings forward the researcher’s prejudices” (deMarrais & Lapan, 2004,

p. 115). The investigator enlisted an experienced qualitative researcher from an accredited allied health care profession who was not involved with the study, but had some knowledge of EMS education and EMS as a profession. This volunteer posed the interview questions to the investigator. Pollio, Henley, and Thompson (1997) state:

This is done to provide the researcher with some feel for what it is like to be interviewed on the present topic of his or her investigation and to provide a thematic description of his or her present understanding of the phenomenon. (p. 48)

The bracketing interview allowed the investigator to increase her awareness of personal biases in an effort to avoid forcing them on participants or on interpretations of participant interview data (Pollio, Henley, & Thompson, 1997). The investigator has a strong, positive affinity to the accreditation process. This information was considered as the investigator analyzed the data, attempting to remove bias from the study results.

A variety of strategies were employed by the investigator in an attempt to perform a credible study. These included member checks, triangulation, peer debriefing, and writing with thick, rich description (Creswell, 2003; Merriam & Associates, 2002).

Performing member checks is an important method to ensure credibility (Merriam & Associates, 2002). Maxwell (1996) argues that performing member checks on the participants is “the most important way of ruling out the possibility of misinterpretation of the meaning of what they say and the perspective they have on what is going on” (p. 94). Member checks required the researcher to initiate further contact with the participants after the initial interview. All participants were contacted by email following their interview. Additional questions were posed via email to the nine program director participants to collect information that was not obtained during the interview.

Triangulation is a method of ensuring valid and credible research. Miles and Huberman (1994) list five methods of triangulation, including 1) data source, 2) method, 3) researcher, 4) theory, and 5) data type. Additionally, Denzin (1978) includes analysis by multiple individuals to confirm the procedures and to interpret the data. The investigator collected data from two different sources: the North Carolina community college campus EMS education leaders and EMS state administrative and education leaders. The investigator utilized three different methods of data collection, including interviews, field notes, and document analysis. In an attempt to establish triangulation and trustworthiness during the data analysis phase of the study, the investigator elicited a volunteer that has qualitative coding experience to code two interview transcripts. One transcript was a program director interview, and the other transcript was a state administrator interview. The volunteer's coding was compared to the investigator's coding for the same interviews. Of the 12 codes the volunteer identified, seven (58%) identically matched the investigator's codes.

A final threat to qualitative studies occurs when the researcher fails to recognize and acknowledge data that may provide descriptions or meanings extraneous to the evolving theory (Maxwell, 1996). The investigator utilized peer debriefing to address this issue. Peer debriefing provides an outsider's view of the research. Creswell (2003) argues that this technique helps to ensure the accuracy of the study. The investigator enlisted the help of a peer volunteer knowledgeable about the content, but not involved in the study, to review the data analysis and offer recommendations concerning the developed themes.

A hallmark strategy for ensuring quality in qualitative research is providing a thick, rich description of the data analysis. "This involves providing an adequate database, that is, enough description and information that readers will be able to determine how closely their situations

match, and thus whether findings can be transferred” (Merriam & Associates, 2002, p. 29). The investigator utilized this strategy when documenting and presenting the data and subsequent ideas derived from the data.

### *Ethical Considerations*

The investigator is accountable for the completion of ethically conducted and responsible research. “[R]esearch ethics is at a very basic level about establishing, maintaining, and nurturing reciprocal and respectful relationships. . .” (Denzin & Lincoln, 2005, p. 97). Qualitative research demands unique methods for ensuring an ethically sensitive study. These include the principles of informed consent, confidentiality, and nonmaleficence. These ethical principles were revisited by the investigator during each phase of the study to ensure strict adherence.

Informed consent was elicited from the participants, including permission to interview the individual, to analyze and interpret the data gathered from the interview, to use these data in creating themes, and to present them publicly (Mason, 1996). Each participant was informed prior to his or her participation of the purpose, the nature, and the procedures of the study (Creswell, 2003). Signed informed consent forms were received from each participant. The investigator also explained to the participants the expectation of public dissemination of the data and results (Seidman, 1991). Participation in the study was voluntary. Study participants were informed of the voluntary nature of this project and their right to refuse to be included in the study or to withdraw from the study at any time if they felt it necessary. Application was made to the University of Tennessee Institutional Review Board. Form B was completed and submitted for approval of the study and the informed consent form prior to the first interview. Approval was granted, and the interviews were scheduled and conducted.



Confidentiality was addressed in a number of ways. The investigator signed a Pledge of Confidentiality form and sent a copy to each participant to keep for their records. Participant anonymity for the participants was protected by assigning a random number to each individual. The investigator removed any information identifying the participants from any notes or memos generated during the study. Any data that would potentially identify the participants were omitted from the tables within the study. Any related documents identifying the participants are stored in a locked filing cabinet accessible only by the investigator. All transcribed interviews are stored on the investigator's computer. Access is password protected and restricted to the investigator alone.

Nonmaleficence means "do no harm", and may encompass associated ethical principles including beneficence, veracity, and objectivity. Beneficence is doing good at all times for all involved. Veracity is truth-telling. Objectivity requires the investigator to remain unbiased during all phases of research. Qualitative research methods are inherently riddled with investigator subjectivities. The investigator became part of the study as she collected the data. Direct involvement was necessary in utilizing interviews as part of the research process. Qualitative inquiries required that the investigator be submerged in the data collection process. A bracketing interview and member checks were performed to address this issue and to minimize the investigator's bias during the data analysis.

## Chapter IV: Findings

### *Introduction*

The purpose of this study was to explore the attitudes and action plans of North Carolina EMS education leaders related to the impending policy initiative of national EMS education program accreditation. The research questions addressed in the study were: 1) How do EMS education leaders in North Carolina view the impending policy initiative involving national EMS program accreditation?, 2) Do EMS education leaders in North Carolina plan to seek accreditation?, 2a) If so, what steps have been taken?, and 2b) If not, why?

The study employed a case study design involving in-depth interviews, field notes, and document analysis. The study utilized a purposive sample of EMS education leaders in North Carolina, including program directors from nine non-accredited AS degree programs and two administrative representatives from the North Carolina Office of EMS. This chapter will discuss the demographics of the study participants and settings and will present subsequent findings of the inquiry.

### *Demographic Data*

#### *Participants*

The participants consisted of nine program directors of non-accredited AS degree programs in EMS in North Carolina and two administrative representatives from the North Carolina Office of EMS. The backgrounds of the nine participating program directors varied widely (See Table 6). The length of time in the position as program director ranged from 1 to 12 years, with an average of seven years overall. The program directors' levels of education were also varied. Three program directors have a Master of Education degree, four have a

**Table 6. Program Directors' Demographics**

Code	Length as Program Director	Level of Education	NC OEMS Instructor	Years Teaching	Years as a Paramedic	Work in Field	Nationally Registered
57	8 years	BS	Level II	8 years	15 years	No	Yes
91	8 years	AS	Level II	8 years	14 years	Yes	No
96	12 years	MEd	Level II	26 years	18 years	No	Yes
22	4 years	BS	Level II	8 years	12 years	Yes	Yes
42	6 years	BS	Level II	11 years	21 years	Yes	No
25	12 years	MEd	Level II	28 years	25 years	Yes	Yes
77	7 years	MEd	Level II	26 years	32 years	No	Yes
47	8 years	BS	Level II	20 years	22 years	Yes	No
33	1 year	AS	Level I	10 years	7 years	Yes	No

baccalaureate degree, and two have an AS degree. One of the program directors with an AS degree is currently working on a baccalaureate degree. The other program director with an AS degree plans to begin a baccalaureate degree program in the near future. The number of years teaching ranged from 8 to 28, with an average of 16 overall. The number of years experience as a paramedic ranged from 7 to 32, with an average of 18 overall. Six of the program directors continue to work in the field as paramedics in addition to their teaching and administrative responsibilities. Their times in the field ranged from an occasional shift to eight shifts per month. Eight of the program directors are North Carolina Office of EMS Level II Instructor certified. One is Level I certified, but currently in the process of completing Level II Instructor requirements. It is also encouraging to note that 5 of the 9 program directors are nationally certified.

The study also included two administrative representatives from the North Carolina Office of EMS. The administrative representatives were selected based on their knowledge of

and experience with both EMS education and national EMS program accreditation. They have a wide range of purview over EMS administration and education. Collectively, their responsibilities to the Office of EMS include policy making and involvement, monitoring EMS educational institutions, regulatory responsibilities, quality assurance, compliance, credentialing, liaison between the EMS community and the North Carolina General Assembly, liaison between the state of North Carolina and other agencies within the state and around the nation, resource to EMS education programs in the state, and educational liaison to the North Carolina Community College System.

#### *Associate Degree Programs*

The study included nine non-accredited AS degree programs in EMS in North Carolina. A review of each program's curriculum was performed. Within the North Carolina Community College System, each AS degree program in Emergency Medical Science utilizes the same course prefixes and numbers for the EMS specific courses. The required prerequisites and co-requisites varied slightly. The total program hours totaled between 69 and 75 credit hours. Each program culminates with the Associate of Applied Science degree in Emergency Medical Science.

There were a number of differences in the AS degree programs' composition (See Table 7). The number of first year students enrolled in the programs ranged from 3 to 31, with an average of 19 overall. The number of second year students ranged from 4 to 16, with an average of 10 overall. All but one program have a cap on the number of students accepted each year. Reasons for establishing a cap included clinical space, classroom space, laboratory space, and number of instructors. The number of fulltime faculty ranged from 1 to 7, with an overall

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**Table 7. Associate Degree Programs' Demographics**

Code	1 <sup>st</sup> /2 <sup>nd</sup> Year Students	Cap/ Number	FT/PT Faculty	Continuing Education	Goals & Objectives	% Students Take Registry	Support	1 <sup>st</sup> Time Pass Rates
57	20/11	Yes/22	2/1	No	No	10	N/A	100
91	18/9	Yes/30	1/6	No	Yes	90	Yes	88
96	22/6	Yes/24	2/10	Yes	Yes	50	Yes	100
22	16/8	Yes/18	2/0	No	Yes	75	Yes	100
42	30/16	Yes/32	7/30	Yes	Yes	1	Yes	UNK
25	31/16	Yes/35	3/30	Yes	Yes	75	Yes	44
77	22/4	Yes/25	2/5	Yes	Yes	100	Yes	93
47	8/12	No	1/8	Yes	Yes	50	Yes	70
33	3/9	Yes/30	1/1	Yes	Yes	20	UNK	100

average of two. In three of the programs, the program director was the sole fulltime faculty member. Part-time faculty ranged from 0 to 30, with an average of 13. All nine programs have students that take the National Registry credentialing examination after completion of the curriculum. The number attempting the examination ranged from 1 percent to 100 percent of the graduating students and averaged 52 percent overall. Six of the programs offer continuing education in addition to the curriculum program. Only 1 of the 9 programs did not have written program goals and objectives.

Of the nine program directors interviewed, eight are currently working on accreditation. Of these eight, seven of them anticipate both institutional and financial support for their respective program's accreditation process. The other program director is currently unsure of the amount of institutional and financial support that will be received from the community college.

#### *Research Question One*

The first research question asked, How do EMS education leaders in North Carolina view the impending policy initiative involving national EMS education program accreditation?

Participants were consulted regarding their opinions about accreditation.

In addition they were asked to describe what, if any, type of action plan they have developed regarding national EMS program accreditation. Participants believed that 1) accreditation will bring many benefits to programs that seek it, 2) accreditation will bring many challenges to programs that seek it, 3) the National Registry of Emergency Medical Technicians' decision to require national EMS program accreditation had a resounding positive, but debatable effect on EMS education leaders in North Carolina, and 4) accreditation will have a profound, positive effect on EMS as a profession.

### *Benefits of Accreditation*

The perceived benefits of accreditation as viewed by the participants were numerous. Eight program directors and both North Carolina Office of EMS representatives stated that accreditation is valuable. Participants reported the following benefits of accreditation. The main stakeholders benefiting from accreditation were the EMS program and two of the main constituents of the EMS program, the students and the public.

Participants believe that EMS programs would benefit in three ways: improved image, quality, and opportunities. The program image would be enhanced through the process of accreditation. Seven program directors felt that accreditation is a "seal of approval", causing the program to "stand out" from other programs. Accreditation enhances the pride in the program. It offers "credibility" and "prestige" and affords recognition as a "program of quality". Program director 77 stated, "I think the process can instill quality in a program, but like anything that - any accreditation, I think accreditation is a process to, again, prove quality and prove what you do." Accreditation represents the "spit and polish", provides the "feather in their cap", and allows the program to have "bragging rights" after completing the process. The majority of the

participants felt that accreditation would have positive and dramatic effects on their programs' image and how it is perceived by internal and external stakeholders.

Participants also believed that accreditation also affects program quality. Seven program directors described accreditation as a way to “benchmark” or compare their programs with other similar programs. Program director 25 stated, “Well, I think the positives go back to like I've said, we're able to benchmark, I think it makes the program more consistent, it just - it cleans up a lot of things that we may be a little more lax about.” In addition, it forces “continual program improvement”. This was evidenced by program director 42 stating, “I think that it causes you to look at yourself and, you know improve yourself, and reevaluate constantly. I think that's a good thing.” The program directors described accreditation as a method to “tighten up” and “evaluate the performance” of EMS programs. Accreditation is a “confirmation that you are doing a good job.” It provides “validity” to an EMS program. Program director 33 stated, “If it's gold standard, I'm gonna do it, if it'll benefit the students.”

The study participants described accreditation as providing numerous positive opportunities for EMS education programs. One of those was the ability of the EMS program graduates to take the National Registry of Emergency Medical Technicians' paramedic credentialing examination. Six program directors stated that accreditation also strengthens marketing ventures, becoming a selling point for potential students. It allows programs to attract more students and higher quality students. Program director 91 stated, “I wanna give any student that comes into this program, I wanna give 'em all the opportunities for growth wherever they go; and in order for them to go somewhere else, another state, they need that National Registry; and to get it, we need accreditation. So we need to go that path.”

The second area participants believe will benefit from accreditation involves two of the main constituents of the programs: the students and the public. Six program directors believe that accreditation ensures “accountability”, “transparency”, and “validation” that the EMS program is “honest” in all aspects of and descriptions about the program. Program director 47 stated, “I think it kind of offers a transparency to the program that makes it better. I think it offers to the public and to the students, I won’t say the certainty, but just short of lack of certainty, that it’s a good program because they meet national standards. They’ve gone above and beyond what they had to do and so they’re really interested in doing it right.” Participants stated that accreditation helps programs to be better “student advocates”, requiring standards, adequate and appropriate faculty, and valid testing mechanisms.

Another area mentioned by the study participants was the ability for students to articulate with other educational institutions. It ensures that credits earned will transfer to other institutions. Graduating from an accredited program also allows the student to be eligible to attempt the National Registry of Emergency Medical Technicians’ paramedic credentialing examination. North Carolina Office of EMS representative 89 stated, “I absolutely think it’s valuable. I think it’s valuable to the institution. I think it’s valuable to the program. I think it’s valuable to the faculty; it’s valuable to the students. I think it’s ultimately valuable to the pure monetary value of the credential or license that that person holds”. Accreditation is viewed by the participants as a “legitimate” process that sets the “standard” across EMS programs. They also stated that it helps ensure continuity of EMS programs across the country. Program director 22 expressed, “Well I think as a whole nationally it’s going to, it’s a national where it’s rating everybody on a set standard across the nation. So I think it does show continuity across the



states.” Finally, accreditation of EMS education programs ultimately leads to “better patient care”, which positively impacts society.

The benefits of accreditation were further evidenced and confirmed by documentary review. From the documents collected, 7 of 8 program directors engaged in the accreditation process have formal, written documentation indicating accreditation is an established program goal. These were stated in numerous documents including, funding objectives, letters to college administration, program reviews, unit plans, and planning reports (See Appendix G).

### *Challenges of Accreditation*

The second area of participant opinion involved numerous challenges associated with accreditation. Their concerns were clustered in four main areas: programmatic challenges, individual (EMS education leader) challenges, possible bureaucratic challenges, and participant insecurity about the benefits of accreditation.

Participants mentioned numerous challenges that accreditation would bring to their EMS programs. The cost of the accreditation process was mentioned by four program directors and both North Carolina Office of EMS representatives. This was evidenced by program director 22:

The negative is with it being so demanding, so expensive, I mean, it's very expensive. I don't think some programs are going to be as fortunate as we are to have the background or the foundation support from their institutions to be able to support that both for time the administration time of it and the financial background and that's, like National Registry making that a mandate, I think it's going to be an issue for them.

Additionally, the North Carolina Office of EMS representative 89 stated, “What I do have concerns about with accreditation is the general cost of accreditation. I think that that is a huge hindrance in any program.” In addition, some felt they would need additional equipment in order

to meet accreditation requirements. Program director 33 stated, “I think our problem’s gonna be equipment - financially I think that’s where our problem’s gonna come in.”

First-time student pass rates on the North Carolina state paramedic examination was a concern of one program director and one Office of EMS representative. The state of North Carolina does not charge for EMS education when the student is affiliated with an EMS agency, rescue squad or fire department. The community colleges are subsidized by the North Carolina General Assembly to provide funding to the programs. However, in order to receive that funding, the EMS programs must maintain a minimum of a 70 percent first-time pass rate on the North Carolina paramedic credentialing examination. The most recent North Carolina state average for first-time pass rates on the paramedic credentialing examination for classes conducted in 2008 was 75 percent. Eight of nine program directors provided their most recent first-time pass rates. The pass rates ranged from 44 percent to 100 percent. Data reflecting this can be found in Table 7.

One program director was concerned about student attrition rates, stating that they were high, both for academic and non-academic reasons. Additionally, without accreditation, EMS programs have the potential of losing students as they migrate to accredited EMS education programs so they have the opportunity to take the National Registry of Emergency Medical Technicians’ examination.

Clinical and field internships were another area of concern of the participants. Three of the programs do not have access to an operating room for their students to endotracheally intubate (inserting a breathing tube into the trachea) live patients. Program director 96 stated, “We feel we’re gonna have some issues; we haven’t been through all the materials yet, and as we work through it, but we think we’ll have some issues with the clinical sites, we have no access to

an operating room for intubations.” Program director 25 concurred, “I think . . . in some way, shape or form there was a statement in there about students had to have live intubation capability or something of that - we had that here probably up through 1985 and haven't had it since.”

Program director 77 stated, “My field internship isn't where I want it to be. My faculty aren't where I want them to be . . . The biggest thing to me is we do field internship . . . we looked at materials and we want to build the preceptor program in that to make sure that - we think that area is gonna be a challenge. We believe that probably the weakest link we have is the field internship.”

Six of the program directors were also concerned about having to increase their medical director involvement in the program. Many of these medical directors hold numerous roles and responsibilities in local and state EMS activities. Their current interaction with the AD programs in EMS is limited. Program director 77 asserts, “We do realize our weaknesses; we're struggling with medical direction right now”. Finally, there is a growing concern about the non-traditional educators that are teaching in the EMS programs. Both North Carolina Office of EMS representatives expressed concern in this area. Many of these individuals do not have a formal education background. They were “great paramedics” that were moved into the classroom, but lack appropriate credentials and are not qualified to teach in SACS accredited institutions.

The second area of participant concern was individual in nature. Some participants were worried about the effect that the accreditation process would have on them personally. They felt it was going to be a substantial “challenge” and some are “uncomfortable doing it”. Program director 57 stated, “I wanna have the accreditation; but I don't like the idea of somebody coming down here . . . and them telling me, ‘You're doing this wrong’. When I'm not doing it wrong, especially if I've got the kind of program that I think we have; and I have the kind of pass rates

that we have . . . That's probably my biggest fear - is when I've been an instructor for so long, and I try to do my best; and then I'm gonna have somebody tell me I'm doing it wrong; or I gotta change it; or I'm not gonna be recertified. I'm not gonna be reaccredited." Another program director (47) added a concern about, "Having somebody come here and basically look over your shoulder, interview your students, that kind of stuff." Some also mentioned the tediousness of the process and the amount of paperwork that was involved.

The main individual concern of the participants was time, as expressed by eight program directors and one North Carolina Office of EMS representative. Many of the EMS programs do not have enough faculty members currently to do the necessary job effectively. Six of the nine program directors are coordinating continuing education programs in addition to the AD curriculum program. Three participants are serving as both program director and clinical coordinator of their program. Six are still currently working in the field part time as paramedics in addition to their educational and administrative responsibilities. Their time is extremely limited, and they are concerned that embarking on accreditation is only going to add to their workload. Program director 42 commented, "The biggest single most problem is probably just finding the time to do everything and still be able to operate our programs, you know without impacting that." Another program director (25) commented as follows, "I think that the challenges to accreditation . . . time is something that I've got to sit down and do in addition to all these other 1,950 things. I've still got tests to grade, I've still got students to meet with, I've still got a progress log to do for the students to map their progress. . .so, you know, it goes on and on and on." Program director 96 added, "Our biggest concern is the time involvement and having time to get it done."

There were a number of possible bureaucratic issues surrounding the accreditation process that were mentioned by the participants. Concerns were different at the state level than at the community college level. The state level education leaders are data-driven. Currently, they noted a lack of specific data that describes differences in graduates of accredited and non-accredited programs. They also require data to justify approaching the North Carolina General Assembly, recommending the alteration of state policy, and asking for additional funding to support national EMS program accreditation. North Carolina Office of EMS representative 62 stated, “Somebody's going to have to give me something before I can go and say we think every teaching institution ought to have it and it's going to cost your teaching institution so we're going to put it in the rules that you must be accredited to offer EMS courses in this state. We have to figure out how to make the politics work to get it done. And do that in a way that people understand it and people support it.”

Also at issue are the numerous non-traditional EMS education entities in North Carolina. Currently, there are 152 EMS education programs in North Carolina. There are 52 EMS education programs within community colleges (12 of these are AS degree programs), one baccalaureate program within a university, and the other 99 are non-traditional entities. Funding streams for these non-traditional certificate programs is dramatically different than that of the community colleges. North Carolina also has a number of military installations. The schools educating these individuals need to be able to provide access to the National Registry of Emergency Medical Technicians' credentialing process, as the United States military branches require National Registry of Emergency Medical Technicians' paramedic credentialing. This will require accreditation. In addition, many North Carolina paramedics work in the surrounding states and need their national certification to practice in those states.

Finally, one participant was worried that accreditation would harm the volunteerism in North Carolina that has been the staple of EMS provision for years. Many of these volunteers get their education through non-traditional certificate EMS programs. It potentially will be more challenging for these entities to meet the criteria and to obtain accreditation, ultimately affecting the numbers of EMS volunteers in the state.

Two program directors and one North Carolina Office of EMS representative expressed insecurity and uncertainty about the benefits that accreditation might bring. There were mixed feelings regarding the process. These participants questioned the overall benefits of the accreditation process, indicating there is an air of the unknown about the outcomes. This has some of the participants worried. Program director 96 stated, “We’ve made the decision that this is something we need to look at - do we think that - do we know there’s benefits at the end of the line? No we don’t. Do we know there’s negatives at the end of line? No we don’t. So we’re gonna learn like everybody else is gonna learn.” Not all participants are convinced that accreditation will bring positive results and outcomes. Others are apprehensively approaching the process. A dichotomy exists, with some EMS education leaders actively working on accreditation out of necessity, but not yet convinced of its benefits.

The challenges of accreditation were also evidenced by data entered in the field notes. Comments noted in the bound journal documented the environment and descriptions of the participants. While all participants appeared comfortable during their respective interview, they exhibited different mannerisms. Those participants who were unsure of the benefits and did not have an answer to that line of questioning appeared somewhat frustrated as indicated by their facial expressions and hand gestures, including concerned looks on their faces and arms crossed or thrown up in the air.

*National Registry of Emergency Medical Technicians' Decision*

There were differing participant opinions about the National Registry of Emergency Medical Technicians' decision to require national EMS program accreditation to be eligible to take the paramedic credentialing examination. The National Registry of Emergency Medical Technicians' decision had a resoundingly positive, yet debatable effect on the EMS education leaders in North Carolina. There was some notable disagreement by two program directors and one North Carolina Office of EMS representative with the National Registry of Emergency Medical Technicians' decision. Some participants felt that the National Registry of Emergency Medical Technicians was attempting to regulate states and forcing states to act. Program director 96 stated, "I think the Registry has gotten beyond their realm of what they should be doing as a credentialing agency." This could possibly "drive states away" from the National Registry of Emergency Medical Technicians. One North Carolina Office of EMS representative suggested that the National Registry of Emergency Medical Technicians may possibly lose some member states as a result of their decision. It was suggested by one North Carolina Office of EMS representative that these regulatory decisions would be better received from the states if they came from the National Highway Traffic Safety Administration's Office of EMS. States would then be required to follow their directives. Some participants felt that leadership is needed from the National Highway Traffic Safety Administration to identify funding and subsidize states as they seek accreditation. North Carolina Office of EMS representative 62 added, "The Registry drew the line in the dirt that said by 2013 or whatever they weren't going to be offering a test. I've been very vocal about that because I don't think anybody died and put the Registry in charge of the *EMS Education Agenda for the Future*. I think the Registry have done themselves a huge disservice by trying to take it and run with it and force it on states. We're not trying to compete

with the Registry. But what we're saying is North Carolina cannot participate in the Registry because of the fees.”

For most participants, the decision was the catalyst that forced them to begin working on accreditation. Program director 42 stated, “They probably sparked things for us, started the ball rolling. We’ve been wanting to do this for a while, and it’s just one of these things that haven’t been as high on our to-do list as it is now. Am I happy with the Registry for doing that? No, I’m not.” Program director 33 stated:

It [decision to seek accreditation] came from National Registry saying that they had to be, you know, I had thought about it before and looked at it, and have it as a long-term goal to do ‘cause I thought it would be, you know, put us a step above and stuff, but that really pushed me to say, no, this is what we have to, and as a matter of fact last week I broached it to the vice president and the division director and said, this is where we need to go.

Many program directors admitted that they either would not be working on accreditation now or be as far along in the accreditation process if the National Registry of Emergency Medical Technicians had not “made the decision for them”. They stated that their “button got pushed” and that the decision “started the ball rolling”. Two program directors stated that if the decision had not been made, they would be too busy dealing with other administrative and educational tasks to begin work on accreditation. Five program directors stated that they would not be as far along in the accreditation process if the National Registry of Emergency Medical Technicians had not made their decision. Program director 25 stated, “You know, it's like anything else, you need something to give you a little boot so we know it's coming. It's inevitable. We need to do it. It's an accepted thing.” Program director 91 commented, “We were discussing it...and, you know, being a one-man show here, it sat on the back burner; and



we kept - I kept moving it closer to my computer; and then when this came out, it went to the top of the pile.” North Carolina Office of EMS representative 89 stated:

From a proactive standpoint, and again we don't always play well with the National Registry so I don't have any stats in front of me where I can go to. I don't know what the percentages are of folks in EMS programs that are testing National Registry. I have no idea. Could we find that out? Probably. Should we find that out? I would think we would probably need to, to figure out what the impacts to these institutions are. It could be as easy as we find out that seven percent of the people who go through our program tested National Registry. For seven percent is it worth it? Is it worth the fiscal obligation and the time commitment for our institutions to do this? I don't know. Can those institutions provide those answers? No, only the Office of EMS can provide that answer. And is it something that we should probably do? Probably.

#### *Accreditation Effect on the EMS Profession*

Accreditation's role and effect on the EMS profession was discussed by each of the participants. Eight program directors and both North Carolina Office of EMS representatives believe accreditation will lead to “higher standards” and “consistency” and “continuity” that helps to validate EMS education programs. Program director 47 stated, “I hope that it draws us as an EMS community together more on a national level, that there's more consistency there that we can work towards that national certification.” Program director 25 stated, “So I think some consistency among our industry, a defined set of defined knowledge and a defined standard would up our industry, by far, and maybe address some of the professionalism issues that are attached to compensation that we sometimes fuss about.” These will lead to more and better jobs for the graduates. In addition, three program directors felt that accreditation will lead to higher

compensation for prehospital providers. Program director 33 commented, “I don’t want it just for recognition, I want it to give them the opportunities - to get - to increase the pay, to make it a profession - make people realize that this is a profession. This is not just a trade, this is a profession. So I think it’s - I think it’s a long time coming.”

Six program directors and both North Carolina Office of EMS representatives stated that accreditation was a “step in the right direction” for the profession and that it would help “level the playing field” with other mainstream and allied health care professions. Program director 91 expressed, “What I am saying is the more education we get, it makes us more professional in other peoples’ eyes; and until we get away from that [Continuing Education] attitude and volunteer attitude and get into our professional attitude, then we’re not gonna have the credibility against other allied health people. Right now, we’re just second-class citizens; and we need to move beyond that.” They believe that accreditation will lead to increased “respect”, better “status”, and higher “standing” in health care, which ultimately results in increased professionalism for EMS as a whole. North Carolina Office of EMS representative 89 added, “We are probably in the most critical evolution of the EMS education in the history of EMS, being 40ish years old. Nursing went through this and several other entities went through this. The difference is I think there are players involved in this process that have never been involved in other processes, meaning we have a third party . . . national entity that’s not truly a national entity because if it was a national entity all 50 states would be supportive of that initiative.”

Accreditation is expected by the participants to create cohesion within the EMS profession. Program director 57 stated, “We’re not gonna have professionalism unless we’re all accredited. So let’s go at it across the board. Let’s not make it you can, but you don’t have to. We need this. We need the national certifying. We need to be a professional organization.

**Table 8. Program Directors' Accreditation Action Plans**

<b>Code</b>	<b>Working on Accreditation</b>	<b>Length at Time of Interview</b>	<b>Action Plan</b>	<b>Goal</b>
96	Yes	1 month	Gathering data for self study. Faculty meets once per week.	Site visit within a year
47	Yes	3 weeks	Started self study. Talking with Medical Director. Talking with local hospital to hire RNs.	Site visit by 2011
25	Yes	Prior to Registry Announcement	Acquired a completed self study for reference. Created a template with lists of action items. Started self study process.	Accreditation by 2009
42	Yes	Less than 1 month	Early stages of collecting data from OEMS program approval to put in self study	By National Registry deadline
91	Yes	3 years	Requested funding from college. When approved, will request site visit	By National Registry deadline
22	Yes	1 year	¾ of self study completed	Site visit by summer 2009
33	Yes	1 month	Explained process to administration. Researched process online	By National Registry deadline
77	Yes	1 year	Applied to Committee on Accreditation of Educational Programs for the EMS Professions. Performing faculty, student, and employer evaluations	Accreditation by 2010
57	No	N/A	N/A	N/A

Otherwise, we are going to - and I'm not gonna say inferior people, because I don't believe anyone's inferior - but we're going to keep getting the people that maybe this is a second choice for them." North Carolina Office of EMS representative 62 stated, "I think it is [valuable] . . . I think to springboard into the healthcare system because EMS is a port of entry into the healthcare system in my mind. When you dial 911, as far as I'm concerned, you've just entered the healthcare system and all other areas of the healthcare system are accredited and, now, I can't sit here and tell you the benefits of that at other professions . . . I guess we just, you know, it's probably the right thing to do for that reason". North Carolina Office of EMS representative 62 stated, "I think accreditation is gonna be important. I think we need to probably move in that direction simply because all other healthcare professions are doing the same and if we're going to have credibility, down the road, I think it's important that we have accrediting."

### *Research Question Two*

The second research question and its sub-questions were, 1) Do EMS education leaders in North Carolina plan to seek accreditation?, 2) If so, what steps have been taken?, and 3) If not why?

#### *Accreditation Action Plans*

Overwhelmingly, the study participants are planning to seek accreditation. Eight of nine program directors and both North Carolina Office of EMS representatives have action plans to address accreditation. These action plans are detailed in the following sections.

*Program Directors' Action Plans.* One half of the participants had only recently begun the process of accreditation at the time of the interview. Eight of the nine program directors have acted on the decision to begin seeking accreditation despite some apprehension and insecurity with the process. These eight program directors have established accreditation as a formal,

written program goal. Six of them were working on their self study at the time of the interview. Their action plans were in various stages of development and implementation (See Table 8). The length of time they have been working on accreditation varied from less than 1 month to 3 years. Those who were further along in the process had more specific action plans than those who had just begun the process. Most of the eight AD programs in EMS in the state of North Carolina that are currently working on the accreditation requirements are in the early stages of the process. Half of them had been engaged in the process for one month or less at the time of the interview. They are proceeding at different rates and through different methods. There is little consistency in their approaches to national EMS program accreditation.

Program director 47 had been working on accreditation for approximately three weeks at the time of the interview. The program director is limited in action by budgetary constraints. The faculty has met once to discuss the accreditation process and their plan. The program director attended a national conference on a “fact finding mission” about accreditation. There is concern about creating validated examinations. The program director has purchased a set of validated test questions to utilize in student examinations. The clinical coordinator is working with local facilities in an attempt to establish operating room rotations for the students to perform endotracheal intubations on live patients. The clinical coordinator is also working on obtaining access in the specialized hospital units and hiring a registered nurse to precept the students in the hospital. In addition, a program representative will meet with the medical director and discuss increasing his involvement with the program. His current interaction with the program, faculty, and students is limited. The program director has begun work on the self study and hopes the site visit will occur by 2011.

Program director 42 had also been working on accreditation for approximately one month. They have begun looking at the requirements and have identified some deficits. The program director's goal is to meet as a department in the near future to clearly identify what needs to be done and assign tasks to specific individuals. The program director hopes to be formally engaged in the accreditation process within the year. The ultimate goal is to be accredited by the National Registry of Emergency Medical Technicians' 2013 deadline.

Program director 96 had been working on accreditation for approximately one month. The program director had actually begun considering accreditation in 2000. However, due to limited time and resources, was unable to continue working on the accreditation process. Currently, the program director has begun collecting data for the self study. The faculty members meet weekly to discuss the progress toward accreditation. The goal is to have the site visit within the year.

Program director 33 had also been working on accreditation for approximately one month. The program director has met with the department and college administrative representatives to inform them of the decision to become an accredited program. In addition, the program director has begun researching the process online. This is the extent of the program's progress toward accreditation. The goal is to be accredited by the National Registry of Emergency Medical Technicians' 2013 deadline.

Program director 77 was one year into the accreditation process. They have begun evaluating the faculty and will soon evaluate employers and graduates. In addition, the program director has made the initial application with the Committee on Accreditation of Educational Programs for the EMS Professions. The program director expects to have the self study completed and submitted within the year and have the program accredited by 2010.

Program director 22 was approximately one year into the process. The initial discussions of accreditation were begun prior to the National Registry of Emergency Medical Technicians' decision. They have begun the process in earnest within the last year. The program director's initial action was to ensure funding would be available. Approximately three quarters of the self study has been completed. The program director hopes to submit the self study within the next few months and have the initial site visit during the summer of 2009.

Program director 91 began researching the accreditation requirements three years ago. However, because the program director is the only full time faculty member, it became a "back burner" item and had not been addressed until the National Registry of Emergency Medical Technicians' decision was announced. The program director has assembled an EMS advisory committee for the program. In addition, the program director has requested funds for the accreditation process. Once the budget is approved, the program will apply for accreditation and schedule the site visit.

The final program director (25) working on accreditation has been engaged in the process for three years. The program director has obtained a completed self study from an accredited EMS program for reference. The *Standards and Guidelines* have also been reviewed. The program director has designed a matrix of issues that need to be addressed. The self study has been started. They are also working on finding a better way to store their student records. The faculty is developing a preceptor orientation program to train hospital and field preceptors. In addition, an accreditation budget has been formulated and requested. A planning report and planning objectives that address all aspects of the EMS program have been generated. The program director has also completed an end-of-year status report and a student retention plan.

This program has the most specific documents of the eight that are currently working toward accreditation.

Research question two's sub-questions were 1) If participants are working on accreditation, what steps have been taken?, and 2) If not why? Only one program director (57) is not currently working toward accreditation. The program director is supportive of accreditation, but concerned with the cost of the process. Another concern is the amount of time the two fulltime faculty members spend teaching in the classroom. The program director stated that there is not adequate time to devote to the accreditation process at this time. In addition, the continuing education program is separate from the curriculum program. The program director is working with the continuing education coordinator on a joint venture to get both programs accredited at the same time. The goal is for the program to continue to offer their graduates to take the National Registry of Emergency Medical Technicians' credentialing examination. The program director plans on beginning the process and hopes to be accredited prior to the 2013 deadline.

*Office of EMS Representatives' Action Plans.* Both North Carolina Office of EMS administrative representatives have begun preparing for accreditation. They stated that no formal action has been taken in regards to accreditation, but are informally beginning to address the process. State administrators have assumed a tentative stance in regards to national EMS program accreditation, seeking performance and pass rate data regarding accredited and non-accredited program graduates to justify action. The state administrators are aware of the accreditation movement, but are not sure what the programs are going to need. They are currently discussing their preliminary plan for addressing accreditation in the state. In order to determine how to assist the EMS programs, the North Carolina Office of EMS administrators are



planning to hold separate meetings with each of the educational constituencies in the state.

There are issues that are germane to each group, and each has unique needs.

The first group is made up of the community colleges, which offer a mixture of AS degree programs and certificate programs. The second group is made up of the growing number of EMS training academies and other non-traditional EMS education entities offering certification programs that are housed in EMS agencies, rescue squads, hospitals, and fire departments. These were created to address the paramedic shortage. Some individuals attend classes as part of their job. These entities can train adequate numbers of individuals according to their standards and have paramedics in a short period of time. The goal is to get representatives from each of these programs to meet and discuss the impact and implementation of accreditation. Based on the outcome of these meetings, an assistance plan will be developed and implemented. Possible plans include traveling across the state and educating the EMS educators about the accreditation process and convening a taskforce to draft criteria for North Carolina Office of EMS to support and enforce.

The administrators expressed concern about having adequate resources to assist the programs. They believe that programs will ask for two things, funding and assistance in meeting the accreditation objectives. Financial assistance will only be provided if the North Carolina Office of EMS receives funding from the National Highway Traffic Safety Administration. The state administrators have not yet identified all of the issues related to accreditation; therefore, they do not currently have a specific plan to assist with the objectives. It is estimated that in the next 12 to 18 months, a coordinated plan will be formulated. Currently, the state administrators are making sure that programs know where to get information about accreditation, encouraging

the development of 3-, 5-, and 10-year plans, and helping programs identify the educational program growth that has occurred over the past few years.

#### *Document Review*

In addition to the interviews, documentation was collected from nine of the study participants. The collected documents included a range of program and state forms (See Table 9). Five program directors' documents contained goals and objectives. Four out of five listed action items with a responsible individual assigned to the specific tasks. Each document obtained from the participants has an assessment method to determine if the desired outcome was achieved. Two had budgets that estimated the cost of each desired outcome. Two contained program-specific objectives, while three had student-specific objectives. Eight program directors had an accreditation-specific list of goals and objectives in their documents. In summary, the documents described below offer clear support that the AD programs in EMS are actively seeking accreditation and are at various stages of completion. A description of the documents can be found in Appendix G.

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**Table 9. Documents Received From Participants**

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<b>Code</b>	<b>Documents Received</b>
47	Program Reviews
33	Program Level Learning Outcomes Objective Justification Form
42	Institutional Effectiveness Plan
25	Matrix for Completion of Accreditation Self Study Service Review and Planning Report End of Year Status Report Student Retention Plan
22	Emergency Medical Science Program Policy and Procedure Manual Planning and Outcomes Document
96	2008-2009 Program Review Summary
77	Unit Plan
91	Letter to College Administration
89	OEMS Compliance Monitoring Site Visit Worksheet for Educational Institutions

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### *Conclusion*

Overall, the attitudes of the participants towards national EMS program accreditation were positive. While numerous benefits were named by the participants, some apprehension exists in regards to the process and achievement of accreditation. Many are concerned about having the time and resources required to prepare for and achieve accreditation. The costs associated with the accreditation process are another challenge for the EMS education leaders. The decision by the National Registry of Emergency Medical Technicians to require candidates to graduate from an accredited EMS program by 2013 forced many participants into action. The participants are preparing for and seeking accreditation much earlier than if no deadline had been established. Some expressed distaste with this decision, but continue to see accreditation as a valuable process. Finally, the majority of the participants have created and engaged action plans to address accreditation. Eight of the nine program directors have begun the accreditation process. In addition, both of the Office of EMS representatives are also making preparations to assist the EMS education programs in North Carolina in the accreditation process.

## Chapter V: Discussion

### *Summary of the Findings*

The majority of the participants has a positive opinion of accreditation and has enacted an action plan to begin the accreditation process. They believe that accreditation has many benefits and many challenges. They also believe that the National Registry of Emergency Medical Technicians' decision had a positive, but debatable effect on EMS education leaders, and accreditation will positively impact EMS as a profession. Finally, the participants expect accreditation to have a positive effect on EMS as a profession, elevating EMS to the stature of other allied health and mainstream health professions, improving salary, establishing increased levels of professionalism, and creating continuity in EMS education across the United States.

### *Discussion*

EMS is following the movements and development of nursing and many other allied health professions, taking many requisite steps in the process of professionalization. EMS is a public service profession, serving society and ensuring that ill and injured people receive appropriate treatment prior to arrival at the hospital. EMS is an integral part of the health care team, serving as the entry point into the health care system for many people. The scientific body of knowledge for EMS is defined in the National EMS Core Content and has evolved from the Department of Transportation National Standard Curriculum to the new National EMS Education Standards. EMS education is slowly moving toward a permanent home within higher education institutions. However, many programs are still offered in certification form. Autonomy is present in EMS. Individuals practice independently within a defined area. Federal and state offices of EMS have established standards for practice. EMS regulates itself, correcting problems as necessary. The National Association of Emergency Medical Technicians

established the *Emergency Medical Technician Code of Ethics* in 1978. All prehospital care providers are held accountable for their actions based on this document. States list either certification or licensure as EMS provider credentialing designations (Brown, 2007). EMS credentials its providers through state and national examinations. Each of these examinations has been developed by members of the profession. States have the authority to grant licensure to practice to EMS providers. EMS has numerous professional associations, including the National Registry of Emergency Medical Technicians, National Association of Emergency Medical Technicians, National Association of EMS Educators, National Association of EMS Physicians, and the National Association of State EMS Officials. These associations act collaboratively within the EMS education arena. The peer reviewed journal for EMS is *Prehospital Emergency Care*. It publishes EMS-related research on a quarterly basis. Accreditation is an imperative step in elevating an occupation to the status of a profession. Accreditation of EMS educational programs is occurring as a result of the National Registry of Emergency Medical Technicians' decision. Many EMS education programs have been forced to act, pursuing accreditation so their graduates remain eligible for national credentialing. EMS is moving swiftly towards elevating its status as a true and recognized profession.

EMS education is fragmented, varying not only from state to state, but within the state of North Carolina. The uniqueness of EMS programs has led to vast differences despite the use of an identical national curriculum. Accreditation is a move toward national consistency of purpose and action within EMS education. This movement will lead to standardization across the country. There are many unknowns attached to EMS program accreditation. Some study participants working toward accreditation are unsure of the outcomes and the benefits. EMS education leaders in North Carolina viewed accreditation as a valuable process, but participants

exhibited a fear of change and the insecurities that accompany the idea of major change. One could see a need for briefing education leaders on the history, process, and the impacts of accreditation as it has long been the single, nationally recognized determinant of educational quality in this country.

The National Registry of Emergency Medical Technicians is an organization with much professional heritage that continues to act for the benefit and enhancement of EMS as a profession. The National Registry of Emergency Medical Technicians' decision was the catalyst for many of these participants to begin preparation for and work on national EMS program accreditation. Despite the fact that North Carolina neither participates in the National Registry of Emergency Medical Technicians' credentialing process nor is a mandatory accreditation state, eight of the program directors from nine non-accredited AS programs in EMS are currently working on program accreditation. The other program director plans on beginning soon. In addition, more than one half of the students graduating from nine of the non-accredited AS degree programs in EMS in North Carolina voluntarily take the National Registry paramedic examination upon completion of their education. This move toward accreditation may also be occurring in states that do recognize and require National Registry of Emergency Medical Technicians' credentialing. The ramifications of this possibility for EMS education at a national level are staggering. As is evidenced in numerous other health care professions, EMS is rapidly moving toward the mandatory requirement of education program accreditation and the subsequent linkage to national certification.

Much preparation for the impending accreditation movement is needed. State offices of EMS, national EMS entities, and the Committee on Accreditation of Educational Programs for the EMS Professions are encouraged to prepare for numerous EMS programs around the country

that potentially will be seeking national EMS program accreditation before 2013. Cooperation between the Committee on Accreditation of Educational Programs for the EMS Professions and the state offices of EMS is paramount as they determine if adequate resources, including staff, site visitors, and reviewers, are available to meet the possible demand of programs seeking accreditation. This collaboration is a valuable opportunity to draw stakeholders together, creating standardization in national EMS education.

In addition, EMS education programs will need assistance with the accreditation process. They need a specific, step-by-step action plan to help them through the process. They need strong support from state offices of EMS and national EMS entities. Assistance will ensure programs are progressing similarly, creating the consistency in EMS education that is currently lacking. Despite the challenges surrounding the accreditation process, its effect on the recognition of EMS as a profession cannot be understated. Each previous step of dramatic change in national EMS education as suggested by the *EMS Education Agenda for the Future* has been met with apprehension, division of opinions, and insecurity across the EMS profession. Accreditation is certain to generate similar issues. There are two sets of recommendations, one for action and one for research.

#### *Recommendations for Action*

The following are recommendations for action by the respective state, local, and national EMS entities.

1. Statewide professional education workshops centered on accreditation should be offered by the North Carolina Office of EMS. All stakeholders should be brought together to discuss accreditation philosophy, history, benefits, standards, and liabilities.
2. AS degree program directors and North Carolina Office of EMS representatives



should explore the possibility of partnerships with non-traditional programs to assist them in achieving accreditation.

3. The North Carolina Office of EMS should determine the non-traditional program directors' levels of education and develop strategies to assist those who require a baccalaureate degree.

4. The Committee on Accreditation of Educational Programs for the EMS Professions should determine how many programs within each state are planning for or are already working on accreditation in order to determine the necessary and appropriate resources.

5. State administrative agencies and national EMS agencies should develop support plans and programs to educate EMS education leaders across the country about the process.

6. The North Carolina Office of EMS should determine the number of individuals who take the National Registry of Emergency Medical Technicians' paramedic credentialing examination after they graduate from a North Carolina EMS education program.

#### *Recommendations for Future Research*

While this study focused on the attitudes and action plans of EMS education leaders in a single state, further studies are required for deeper exploration into the effect national EMS program accreditation will have on EMS education across the country. As accreditation continues to the forefront of EMS education, additional studies are needed to track the outcomes of the national policy implementation and its overall effect on EMS education entities and EMS as a profession. The following studies are recommended.

1. Additional studies are recommended to explore how other states are approaching the challenges of national EMS program accreditation.

2. Studies are needed to address how many non-traditional EMS education programs are working on or considering accreditation.
3. Follow-up studies are recommended to determine attitudes and action plans of North Carolina EMS education leaders after the initial accreditation process has been completed and accreditation obtained.
4. Additional research is needed to determine what, if any, differences exist between graduates from accredited and non-accredited programs.

### *Conclusions*

Despite the fact that North Carolina does not mandate accreditation or participation in the National Registry of Emergency Medical Technicians' credentialing process, the move toward statewide EMS program accreditation has begun. EMS education leaders are approaching the national EMS program accreditation process with an anxious anticipation; excited, but unsure of the outcomes of this potential policy change. While the National Registry of Emergency Medical Technicians' decision was not an altogether popular one, it was a catalyst for the change and improvement in EMS education that the profession so desperately needed. Even in a non-accreditation and non-National Registry of Emergency Medical Technicians' state, the decision had a positive, dramatic effect that cannot be dismissed. Had this decision not been made, it is doubtful that many of the EMS programs currently working on accreditation would even have considered undertaking the process this soon. This decision is certain to affect the future of EMS education as EMS evolves toward its future as a true health care profession.

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**APPENDICES**

## Appendix A

**Contact Summary Form****Contact Type:****Visit** \_\_\_\_\_**Phone** \_\_\_\_\_**Site:** \_\_\_\_\_**Contact date:** \_\_\_\_\_**Today's date:** \_\_\_\_\_

1. What were the main issues or themes that struck you in this contact?

2. Summarize the information you got (or failed to get) on each of the target questions you had for this contact.

Question

Information

3. Anything else that struck you as salient, interesting, illuminating, or important in this contact?

4. What new (or remaining) target questions do you have in considering the next contact with this site or with other sites?

## Appendix B

**Letter to Participants**

Date

Name  
Address

To Whom It May Concern:

My name is Denise Wilfong, and I am a faculty member in the Emergency Medical Care Program at Western Carolina University. I am writing to inform you of a research study that I am performing as a requirement of my Doctor of Philosophy degree program at the University of Tennessee. As an educational leader in EMS, I would like to interview you to discuss the proposed policy to require national EMS program accreditation.

Enclosed you will find the following items:

1. Informed Consent Form to be completed and returned **no later than: DATE**  
A second copy of this form has also been included. Please keep this for your records.
2. Self-addressed and stamped envelope for the ease of returning the Informed Consent Form
3. A copy of the Committee on Accreditation of Educational Programs for the EMS Programs' *Standards & Guidelines for the Accreditation of Educational Programs in the Emergency Medical Services Professions* for your review
4. You will also find an original, signed copy of the Investigator's Pledge of Confidentiality form. Please keep this for your records.

Further information about the accreditation process for EMS programs can be found at the Committee on Accreditation of Educational Programs for the EMS Programs' website, [www.coaemsp.org](http://www.coaemsp.org).

If you have any questions or concerns, please feel free to contact me at [dwilfong@email.wcu.edu](mailto:dwilfong@email.wcu.edu) or (828) 230-3937.

I look forward to working with you in the near future. Thank you for your participation in this research project.

Sincerely,

Denise A. Wilfong, MHS, NREMT-P

Enc

## Appendix C

**Informed Consent Form****Informed Consent Statement****INTRODUCTION**

You are invited to participate in a research study examining national EMS program accreditation. The purpose of this study is to explore the attitudes and action plans of the North Carolina EMS education leaders related to national EMS program accreditation.

**INFORMATION ABOUT PARTICIPANTS' INVOLVEMENT IN STUDY**

You will be interviewed by the investigator, Denise Wilfong. The interview will take one to two hours of your time. The interview will be digitally recorded and transcribed at a later date. The investigator will contact you via phone after the interview to address any questions you may have and to revisit any information as deemed necessary.

**RISKS**

There are no perceived risks to you or your organization as a participant.

**BENEFITS**

This study serves to benefit EMS education leaders, EMS education programs, and EMS as a profession. Never before has there been such a push by so many influential national organizations for increasing the quality and standardization of EMS education through the vehicle of national EMS program accreditation.

Participant's Initials\_\_\_\_\_

**CONFIDENTIALITY**

The information in the study records will be kept confidential. Data will be stored on the investigator's computer in a password protected file. No reference will be made in oral or written reports which could link you or your organization to the specific study data unless you specifically give permission in writing to do otherwise.

**USE OF INFORMATION**

Data collected during your interview will be used to complete the study. This information will be used to identify themes regarding North Carolina EMS education leaders and their perceptions and preparation for national EMS program accreditation. Public dissemination of the completed study is expected.

**CONTACT INFORMATION**

If you have questions at any time about the study or the procedures, you may contact the investigator, Denise Wilfong, at Western Carolina University, 128 Moore Building, Cullowhee, North Carolina, 28723, and (828) 230-3937. If you have questions about your rights as a participant, contact the University of Tennessee's Office of Research Compliance Officer at (865) 974-3466.

**PARTICIPATION**

Your participation in this study is voluntary; you may decline to participate without penalty. If you decide to participate, you may withdraw from the study at any time without penalty and without loss of benefits to which you are otherwise entitled.

---

Participant's Initials \_\_\_\_\_

**CONSENT**

I have read the above information. I have received a copy of this form. I agree to participate in this study.

Participant's Signature

\_\_\_\_\_ Date\_\_\_\_\_

Participant's Contact Number

\_\_\_\_\_

Investigator's Signature

\_\_\_\_\_ Date\_\_\_\_\_

## Appendix D

**Investigator's Pledge of Confidentiality**

As the investigator of this study, I understand that I will be reading transcriptions of confidential interviews. The information in these transcripts has been revealed by research participants who participated in this project on good faith that their interviews would remain strictly confidential. I understand that I have a responsibility to honor this confidentiality agreement. I hereby agree not to share any information in these transcripts with anyone except the investigator's doctoral chair or doctoral committee. Any violation of this agreement would constitute a serious breach of ethical standards, and I pledge not to do so.

---

Investigator

---

Date

## Appendix E

**Interview Questions for AS Degree Program Directors**

## Introduction:

Do your students currently take the National Registry exam after completing the program? Why or why not?

## Attitude:

What is your opinion of accreditation?

Is accreditation valuable? Why or why not?

What benefits/problems do you see accreditation generating?

## Action Plan:

Are you currently working on EMS program accreditation?

Why are you seeking accreditation?

Why are you not seeking accreditation?

What steps have you taken in this process?

What benefits/problems do you anticipate in regards to your action plan?

Will you seek accreditation in the future?

Why or why not?

What is keeping you from seeking accreditation now?

## Program Information:

What degree is awarded upon completion of the program?

How long have you been program director?

When was the program established?

How many first year students?

How many second year students?

Where is the program positioned within the institution?

How many total credit hours is the program?

-in the program

-outside/prerequisites of the program

Do you require an application process to the program?

Do you require an entrance examination of your potential students?

Is there a cap on the number of students you can accept each year? Why or why not?

Do you provide continuing education?

Do you offer the certificate program in addition to the AD program?

Do you have written program goals and objectives?

May I have a copy?

## Program Director

What is the highest level of education you have achieved?

What level of North Carolina OEMS instructor are you?

How long have you been teaching?



How long have you been a paramedic?

Do you still practice in the field? Where? How many hours per month?

Are you a Nationally Registered paramedic?

How do you stay current with local and national issues related to EMS education?

## Appendix F

**Interview Questions for the North Carolina Office of EMS Administrative Representatives**

## Introduction:

What is your responsibility in regards to the AS degree programs in EMS?

What level of contact do you have with the AD programs in EMS? How is it facilitated? How often?

What level of contact do you have with the North Carolina Community College System? How is it facilitated? How often?

Why doesn't the North Carolina Office of EMS utilize the National Registry of Emergency Medical Technicians' credentialing process? Will it in the future? Why? Why not?

## Attitude:

What is your opinion of accreditation?

Is accreditation valuable? Why or why not?

What benefits/problems do you see accreditation generating?

## Action Plan:

Do you have an action plan for assisting the AD programs in EMS in working toward national accreditation? Why? Why not? What does the plan consist of?

What is the North Carolina Office of EMS's responsibility in ensuring quality EMS programs? How does it accomplish this?

## Appendix G

### Document Descriptions

Program director 47 provided two separate Program Reviews. The first was presented in table form. This Program Review concentrated on the three or four main areas that the program needs to focus on. Their current focus is on outcomes. The document detailed the proposed outcome, assessment method, timeframe for data collection, the lead person to collect the data, and assessment results and changes made. The four outcomes that the program is currently working on are 1) “Perform rapid systematic patient assessment and determine appropriate treatment regimen,” 2) “Perform scene assessment and utilize external resources to manage the scene appropriately,” 3) “Use effective oral and written communication skills,” and 4) “Assess outcomes of students’ success in passing the North Carolina Emergency Medical Technician-Paramedic credentialing exam.” This document is reviewed and updated annually. The second example of Program Reviews contained the program’s formal statement of accreditation as a goal of the program.

Program director 33 provided a copy of the Program Level Learning Outcomes. This was also presented in table form. These are different levels of learning outcomes and objectives the program needs to review and address. The document listed the proposed outcome, outcome indicator/assessment method, target/benchmark, results, use of results, and the person responsible. The three outcomes in this example are 1) “The student should be able to effectively assess and manage a pediatric trauma patient,” 2) “The student will be proficient in utilization of Continuous Positive Airway Pressure,” and 3) “The student will appropriately document patient care using computer generated patient care reports.” The program continually reviews these documents and adjusts them as necessary. In addition, the program’s Objective

Justification Form was reviewed. This document contains the program's formal, written statement identifying accreditation as a program goal.

Program director 42 submitted an example of an Institutional Effectiveness Plan for the 2008-2009 academic year. This document was broken down into four areas, including planning, cost (or budget action), evaluation, and next steps. In the planning section, items included the task or objective, its related college goal, related core/Quality Enhancement Plan value, task leader, key participants, methods involved or means of assessment, and tangible results or criteria for success. The cost section listed budget request type, budget priority, funding source, campus, budget decision, and estimated cost. The evaluation section listed results achieved or criteria met, assessment results, and supporting documentation. The final section includes the use of the results. There are eight objectives that the program is currently addressing. These are 1) "Students in the Emergency Medical Science degree program will demonstrate critical thinking skills and knowledge of paramedical emergency care," 2) "Students in the Emergency Medical Science degree program will demonstrate necessary reading, writing, communication, and math skills," 3) "Students in the Emergency Medical Science degree program will demonstrate responsibility and professionalism during their clinical assignments," 4) "EMS Department faculty will collaborate with the EMS community to better prepare students for the workplace," 5) "The EMS Department faculty will collaborate with each other and other college faculty and staff to provide adequate equipment for EMS courses," 6) "The EMS Department faculty will collaborate with library staff to acquire instructional media to enhance EMS course instruction," 7) "The EMS degree program will collaborate with the medical community to improve clinical opportunities for the EMS degree students," and 8) "The EMS degree program

faculty respect student opinions and will seek student input regarding instructional methods and effectiveness, and in clinical and internship experiences.”

Program director 25 provided four detailed documents for review. These were a Matrix for Completion of Accreditation Self Study, a Service Review and Planning Report, an End of Year Status Report, and a Student Retention Plan. The Matrix for Completion of Accreditation Self Study document listed goals and the plan for achieving each goal. The program faculty have reviewed the Committee on Accreditation of Educational Programs for the EMS Professions’ *Standards and Guidelines* and included in the matrix those areas they need to address. These areas include 1) “Written program goals and learning domains based on community needs,” 2) “Regularly assess goals and learning domains,” 3) “Full time clerical support,” 3) “Cooperative involvement of the medical director,” 4) Instructional faculty in clinical for frequent assessments,” 5) “Clearly written course syllabi outlining learning goals, course objectives, and competencies required for graduation,” 6) “Must track the number of times each student performs competencies required for exit point according to age, pathology, complaint, gender, and interventions,” 7) “Evaluation of students on a recurrent basis,” 8) “Program must periodically assess it’s [sic] effectiveness in achieving stated goals, and program revised as needed,” 9) “Use certification exams developed by independent national organizations that employ valid cut scores,” 10) “Psychometric evaluation at course end,” 11) “Affective domain instruments approved and tied to employer and graduate surveys,” and 12) “Formal affiliation agreements with all clinical agencies.”

The second document provided by this participant was the Service Review and Planning Report. This document addresses a number of areas. These include a description of the Emergency Medical Sciences program (purpose, unit goals, staffing, operating cost, equipment

expenditures, department full time equivalencies, program full time equivalencies, and facilities), program performance (enrollment and demographic study, employment demand, job placement, graduates, certification/licensure, course completion rates, advisory committee, curriculum currency, student satisfaction with program, additional information about the program, and success in meeting goals and outcomes), accomplishments of the prior year, and analysis of current status and future opportunities (trends, strengths, and challenges). One of the challenges listed in the document is “Assembly of information for national accreditation.”

The third document submitted was the End of Year Status Report for the 2006-2007 academic year. This document listed planning objectives for the program as related to the college goals or initiatives. It contains the specific objective, status assessment results, the person responsible, proposed date of completion, objectives achieved, an action plan, and revised objective if applicable. There were six objectives listed for the 2006-2007 academic year. These included 1) “In order to insure program excellence, the . . . EMS program will achieve national accreditation by June 2007,” 2) “In order to provide real-life learning opportunities, the . . . EMS program will have the ability to incorporate portable advanced life support manikin scenarios into program offerings by June 2007,” 3) “In order to prepare students for entry-level positions, the EMS program will provide state-of-the-industry education in pediatric resuscitation per Advanced Cardiac Life Support standards by June 2007,” 4) “In order to create an appropriate learning environment, the EMS program will provide lab classes in an Occupational Safety and Health Administration compliant, professional appearing atmosphere,” 5) “In order to insure that students graduate with entry-level job skills, the . . . EMS program will use current technology to teach 12 lead EKG, capnography, and pacing by June 2007,” and 6) “In order to insure skill competency, the EMS program will use National Registry skillsheet criteria to assess student

progress by June 2007.” It is interesting to note that under objective one, the program did not meet the objective of reaching accreditation by June 2007. The result of the objective stated “time and workload constraints make it difficult to dedicate time to project.” The action plan stated “will transfer over to next year.”

The final document obtained was a Student Retention Plan. This document addresses the goal of both increasing student enrollment in the program while maintaining student competence in the process. The document includes objectives, strategies, responsible person, completion date, fund type, and a detailed budget for each. The 12 objectives are 1) “The EMS program will develop a public relations CD outlining the EMS profession and associated educational requirements by December 2008,” 2) “The . . . EMS program will offer a preceptor stipend to approved preceptors by January 2008,” 3) “The EMS Department will use high fidelity tetherless manikin to incorporate into simulation scenarios by December 2008,” 4) “The EMS program will have self-contained technology to present off campus programs by December 2008,” 5) “The EMS Program will replace outdated and damaged furniture . . . by July 2008,” 6) “In order to insure student safety, the . . . Program will maintain professional appearing and Occupational Safety and Health Administration compliant lab spaces,” 7) “The EMS Program will utilize the Surgical Technology suites to incorporate lab simulation by March 2009,” 8) “The EMS Department will incorporate high fidelity manikins into the Con-Ed program by January 2009,” 9) “The EMS Program will use a hydraulic stretcher to train students in proper use by January 2009,” 10) “The . . . EMS Program will attain National Accreditation by June 2009,” 11) “The . . . Program will use tabletop exercises to conduct scenario-based training by December 2008,” and 12) “The EMS Program will offer a Continuing Education paramedic class to begin January 2008.”

An Emergency Medical Science Policy and Procedures Manual was provided by program director 22. The program goals and objectives are contained in this document. The program goal is “to prepare. . . Emergency Medical Science graduates to function as competent, ethical Emergency Medical Technician-Paramedics at the entry level.” There are three outcomes. These are 1) “Upon completion of the program, the student will be able to illustrate his cognitive ability effectively to function as an EMT-Paramedic at the entry level,” 2) “Upon completion of the program, the student will be able to demonstrate his psychomotor ability to effectively function as an EMT-Paramedic at the entry level,” and 3) “Upon completion of the program, the student will be able to display his affective ability to effectively function as an EMT-Paramedic at the entry level.” The criteria listed for evaluating these objectives are 1) “Ninety percent of the Emergency Medical Science graduates will pass the EMT-P North Carolina examination on the first attempt,” and 2) “One hundred percent of graduates must make a final grade of ‘C’ or better in all education courses.” In addition, a Planning and Outcomes Document was provided for review. It included program strengths, weaknesses, opportunities, and threats; program goals, success criteria, and plan of action; and a budget item description. This document reported accreditation as a formal, written goal of the program.

Program director 96 submitted a 2008-2009 Program Review Summary. This document was prepared in table format and included program statistics. Eight categories were addressed in the document, including Personnel and Professional Development, Facilities and Equipment, Information Technology, Program and Curriculum, Enrollment, Recruiting and Marketing Efforts, and Retention Efforts. Accreditation is listed under the Personnel and Professional Development category. An expense report was also listed here.



A Unit Plan was submitted by program director 77. This document detailed specific program goals and achievement criteria. Accreditation was listed here as a formal, written goal of the program.

Program director 91 provided a memorandum regarding accreditation addressed to a college administrator. This letter explained the National Registry of Emergency Medical Technicians' decision to require national program accreditation. The document details the initial and sustaining costs associated with accreditation and requests that these costs are included in the 2009-2010 budget year.

North Carolina Office of EMS representative 89 provided the Office of EMS Compliance Monitoring Site Visit Worksheet for EMS Educational Institutions for review. This is a quality assurance document utilized by the North Carolina Office of EMS representatives when making site visits to the EMS educational institutions. This document is in table form with multiple sections. Section one is Required Documentation. The five areas of review include 1) "There is a formal record keeping and record retention plan that details student attendance, performance, scope of practice evaluations, and the selection and monitoring of the EMS instructors and credit for previous education and experience," 2) "There is a formal orientation program for each new instructor," 3) "There is a mechanism to provide updates to each instructor," 4) "There is a mechanism to monitor and assess the effectiveness of each instructor," 5) "There is a mechanism to monitor and assess the effectiveness of the educational institution." The second section is Clinical and Field Internship that includes one section, "There is a method to measure student performance in clinical and field internship." Section three is Emergency Medical Care System Continuing Education. This addresses if "There is mechanism for incorporating

recommendations from the EMS Peer Review Committee into EMS System continuing education programs.”

Section 4 of the North Carolina Office of EMS Compliance Monitoring Site Visit Worksheet reviews Scope of Practice Evaluations. It includes 1) “Each level is appropriately evaluated using scenarios specific to their skill level,” 2) “Each student is evaluated individually or in a manner consistent with Office of EMS guidelines,” 3) “Scope of practice evaluations are conducted under the direction of a credentialed Level II EMS instructor at the appropriate level or by the medical director/advisor,” 4) “Each scope of practice evaluation addresses all the baseline skills for a specific level with the addition of optional skills and skills utilized within treatment protocols,” and 5) “Each scope of practice evaluation falls within the one year requirement for renewal.”

The document concludes with a checklist for the review of certain documents and items utilized in the education process. These include evaluation forms, sample scenarios, sample feedback mechanisms, and sample instructor evaluation forms. Any deficiencies the site visitors note are documented on the last page of the document. If deficiencies are noted, a follow-up plan will be developed and implemented by the North Carolina Office of EMS.

## Vita

Denise Anne Wilfong was born in Clearwater, Florida. She graduated from East Lake High School in Tarpon Springs, Florida. From there, she went to Western Carolina University in Cullowhee, North Carolina. She received a Bachelor of Science in Emergency Medical Care in 1994, graduating Cum Laude, and a Master of Health Sciences with a concentration in Education in 2000. She has taught in the Emergency Medical Care Program since 1999 and served as the Clinical Coordinator since 2001. She is currently the Program Director of the Emergency Medical Care Program. Denise serves on the Board of Directors of the National Association of EMS Educators (NAEMSE) and travels the country teaching the NAEMSE National EMS Instructor Courses (Levels I and II).

Denise is currently pursuing a Doctor of Philosophy in Higher Education Administration at the University of Tennessee, Knoxville.