Appendix E - UNIVERSITY HONORS PROGRAM
SENIOR PROJECT - APPROVAL

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PROJECT TITLE: An Evolving Career: The Physician Assistant

I have reviewed this completed senior honors thesis with this student and certify that it is a project commensurate with honors level undergraduate research in this field.

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Date: 4/14/2004

General Assessment - please provide a short paragraph that highlights the most significant features of the project.

Comments (Optional):

This was a project that utilized personal experience of the student, as well as original research. Compiling information that has previously not been addressed was a primary component of this honors thesis.

An Evolving Career: The Physician Assistant

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University Honors Thesis

Mentor: Holly Ratcliff

April 14, 2004

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Abstract

This report provides a detailed look at the beginning of the physician assistant career, the progression of the career to its current stage, and the process to obtain entrance into a physician assistant program. The background aspect of my report focuses on influential organizations responsible for the success of the career and the obstacles that arose during the construction of the career. The current stage illustrates the responsibilities of the physician assistant, the licensure required, and the changing demographics. Throughout the exploration of various programs in Tennessee and bordering states, current trends and entrance requirements are discussed. From beginning to end, this report shows the evolution of this new career and shows the future projects of what is still yet to come.

Introduction

As the healthcare industry continues to grow, many new careers and technologies are developing. Along with these new aspects of healthcare, many times there are continuing changes that adapt these careers to current practices. One career, in particular, that has developed and evolved is the physician assistant career. This entire career was developed after the rejection from the American Nursing Association to fulfill the needs of the American Medical Association during a time when medical doctors were in desperate demand (Hooker, 2003). In the beginning years of this career, one could gain the title of PA by interning with a physician and taking a certification exam. This avenue of obtaining the title of PA soon caused controversy with other more established medical workers, specifically with the nursing career. When the American Medical Association officially recognized the physician assistant profession and began implementing guidelines for the career, the education of the career began to coincide with many other similar career fields in that time period, such as: nurse practitioners and surgical assistants (Schafft, 1987).

A physician assistant is a licensed professional who uses the standard medical model under the supervision of a physician. The current role of the physician assistant career path and the information for becoming a physician assistant will be the central point of investigation in this thesis project. The type of medicine a physician assistant practices and the extent to which they practice will also be outlined during the development of this report. The distinction between a nurse practitioner and the physician assistant will be illustrated. The current requirements and the steps to achieve these requirements from a college student's standpoint will be the last, but main focus during this research. The need for this information to be readily available to students deciding on their career is very important for

planning and staying on track with qualifications for physician assistant school entrance.

The changes in the profession and the transition to more increasing coursework has created confusion and misdirected information for new and upcoming physician assistant students in the Tennessee region. One hypothesis for this lack of information is the limited physician assistant programs in Tennessee. This state has many more training programs for the nurse practitioner career, a very closely related profession. Another reason for confusion may be that the information established PAs have is no longer the avenue applicable to obtain the title. Various different literary articles have different descriptions on how to achieve entrance to PA school. An early source, *The Physician's Associate: A New Career in Healthcare* (Schafft, 1987), alluded to the early lack of information at the advisory level, mentioning that some counselors are still unaware or very sketchily informed about the career. Many organizations have come a long way to promote the career and to increase awareness, but there are many areas of Tennessee where the general public is still ignorant of the profession and its distinction from the more prominent nurse practitioner. At two particular colleges, Walters State Community College and the University of Tennessee, the information housed about physician assistant programs is very minimal and vague. When attempting to ask someone in the pre-professional advising center of the University of Tennessee about the physician assistant career, three people had to be referenced before someone knew what a physician assistant was and whether their office had any information on the career.

Since the career is still mainly one for experienced healthcare workers, the requirements and information to enter the career have been limited at the college level. The trend for recent undergraduates to enter the program, however, is increasing (Hooker, 2003).

This leads to my investigation into the career path and avenues to promote the program more intensively at the college level, concentrating on these two colleges. At these universities, the advising offices/centers have little if any information, such as pamphlets and flyers for students, as well as current education about the program and its requirements. After researching physician assistant programs, the next step my project will take is to promote the career at these colleges by means of producing an informative pamphlet for interested students. In addition to the pamphlet, an internet web page for interested individuals will be developed to reach a broader audience.

Literary Review

I have read and reviewed numerous articles involving the physician assistant career. This material has contributed to my knowledge about the profession and its evolution. In my research, I have chosen a selection of these articles for their content regarding certain aspects of the career. In the next few paragraphs, I will introduce these literary sources and describe their importance to my thesis topic.

The main source of my information and the reference point for obtaining additional material was the American Academy of Physician Assistant Organization's website. The organization is a member-oriented group, which works in concert with other organizations and serves as a united voice for PA professionals (AAPA, 2004). This site is a source for established PAs, as well as, new and upcoming physician assistants. The site contained many helpful aspects, the first of which, was a page on the history of the physician assistant and questions about the career. Another section that was useful in my thesis was the page containing a centralized directory of accredited PA schools so that I could easily obtain information on the requirements for the different programs.

There were a few books that I chose to use for the history components of the profession. These books were published at the beginning stages of the PA program development. *The Physician's Associate: A New Career in Healthcare* (Callard, 1987) was used to show this developing aspect of the career. This source showed the construction of the new career and the beginning legislation needed to structure the career. This book was written during the developmental stages of the profession. From this selection, I was able to provide statements in my thesis illustrating the different strategies that were used to establish this new career.

Another very important book showing the need in the early stages of this career for a new medical assistant was the *Physician's Assistant- Today and Tomorrow* (Sadler, 1975). This book focuses on the beginning of the physician assistant profession and the complications that arose during its inception. The book outlines the history and the reasons behind the profession. Topics concerning alterations in training are discussed, as well as conflicts with other careers, such as nursing, is addressed. The current status of the PA profession as of 1975 is also addressed. I utilized this book as supporting evidence to show the need for and development of the career.

Another source, *The Physician Assistant in a Changing Health Care Environment* (Schafft, 1987), provided me with details about the roles of the physician assistant in the healthcare environment. There was a chapter devoted specifically to the cost effectiveness of physician assistants and the limitations of the profession. One emphasis that proved to be a useful tool was the detail the book devoted to the physician assistant in different medical fields. The investigation into the specialization of the career and the comparison to the original concept of the profession was utilized, as well. The last part of the book

concentrating on the future supported some of the questions raised in my research about the establishment of this profession in the healthcare arena.

A comprehensive book on the current physician assistant profession that I used for my research was the *Physician Assistants in American Medicine* (Hooker, 2003). This book has a very extensive amount of current information concerning the PA career. There was an extensive amount of information that I used from this book. Among the information I utilized was the chapter, "Current Status: A Profile of the Profession," devoted to the changing role of the physician assistant (Hooker, 2003, p.39). This book was one of my most important resources for up-to-date material for my research.

One valuable source for my graph and statistical work was the *American Academy of Physician Assistants Division of Research and Data Services* (Kraditor, 1997). This book had many statistical studies involving the AAPA and offered graphical data for PAs in the workforce and in different specializations. It also provided examples and direction for my comparison research on the educational requirements for each program.

Many other resources contributed to my thesis project, but the above-mentioned references provided a solid foundation for some specific details that I have included through researching this profession. The various early books and articles were valuable for showing how the career has taken new directions over the years. The more recent literature on the PA program provided current insight, as well as, a more accurate depiction for the future of the career. The success this career has had and its expansion into all aspects of the medical world are captured in the various publications I have reviewed and will continue to review for future research.

Background

During the 1960s, it was generally determined there was a shortage of medical doctors and strategies emerged to remedy this situation in healthcare. Several theories were presented. Many medical administrators and organizations felt more medical school graduates were needed, but the actions to make this avenue a reality were not exercised (Schafft, 1987). One suggestion posed that the medical school program be shortened to allow doctors to enter practice earlier. Another plan was to train specialized nurses to fill this gap in healthcare delivery. The resolution to this medical shortage was the career known today as the physician's assistant. The need to create a medical assistant to aide the physician was determined as medical practice shifted from the general practitioner to specialist practice (Hooker, 2003). The purpose of this new healthcare worker was to compensate in the general healthcare management setting for the increasing move of medical doctors into a specialized practice. The PA program was implemented with some opposition from medical doctors. Ken Ferrell observed that those who needed a PA most were the ones who resisted this idea of an assistant to the physician (Hooker, 2003,p.26). The idea that the physician assistant professional would overtake or hinder the medical authority was a concern in the beginning, but these fears soon subsided when the career was integrated and did not create any power struggles or animosity between the medical doctor and the physician assistant.

The definition of physician assistant, stated by Frary, in 1996 is as follows:

> Physician assistants are health professionals licensed to practice medicine with physician supervision. Physician assistants are qualified by graduation from an accredited physician assistant educational program and/or certified by the National Commission on

> the Certification of Physician Assistants. Within the physician/PA relationship, physician assistants exercise autonomy in medical decision-making and provide a broad range of diagnostic and therapeutic services. The clinical role of physicians includes primary and specialty care in medical and surgical practice settings in rural and urban areas. Physician assistant practice is centered on patient care and may include educational research and administrative activities. (Hooker, 2003, p.9)

This statement reveals the broad scope of the physician assistant career. Identifying the career, without restricting physicians and administrations when assigning tasks and career responsibilities, is accomplished through this definition of the physician assistant career.

The first implementation of a physician assistant program was in 1960 at Duke University, with the first PA graduates being navy corpsmen. These corpsmen were used as the prototype because of their brief but intense training in the field for medical emergencies (Hooker, 2003). As the physician assistant became a popular idea among medical professionals, the type of students to comprise the future groups of PAs had to be determined. Who would qualify? What would be the standard for qualification? The Accreditation Review Commission (ARC) was developed in 1972 to produce these guidelines and regulations. It was not until the Comprehensive Health Manpower Act in 1972 that the newly established career gained momentum, thus began the turning point for the physician assistant programs of today (Hooker, 2003).

Now with more money and support, the profession was becoming firmly established in the medical world. Even with this new support and medical professional acceptance, the

future of this new career remained uncertain. Many healthcare professionals wandered if this career would eventually be phased out when the supply of medical doctors met the demands of the healthcare realm. There are many theories about the fate of this profession. One thing is certain, however; the career has changed healthcare practices in the world of medicine. PAs have also increased the quality of healthcare in busy practices and medically needy and rural communities (Sadler, 1975). The book, *The Physician Assistant in a Changing Health Care Environment* (Schafft, 1987), predicted the future of the career to be more reliant on the administrators of healthcare facilities and not as dependent on the physician, and in many environments this is the case. Many physicians do not dictate the contracts from which the PA practices, as much as they influence how they practice in the clinical setting (Schafft, 1987). Today, there are as many as 132 programs that are accredited by the ARC in 42 states and the District of Columbia. Roughly 59,000 people have completed PA programs since the year 2001 (Hooker, 2003, p.43) These statistics show the growth and popularity of the occupation, and with future projections for the career increasing to as many as 85,000 in practice by 2010, the career seems firmly established despite earlier criticism (Hooker, 2003, p.275).

Progression of Career

During the initial stages of development of the physician assistant, the role of the profession was to consist of entirely technical tasks. The PA would not make any diagnosis or prescription decisions. This aspect would be the physician's realm, as stated by Harvey Estes, chair of the Duke University Department of Community Health Science in 1668. Estes reported that, "the new assistant will take no part in traditional doctor functions" (Sneller, 1978, p.22). Soon after this establishment of the responsibilities of the PA, the role did begin

to encompass these diagnostic and prescription writing tasks. The PA occupation soon transformed from "assist[ing] the physician to an occupation designed to associate with the physician" (Schneller, 1978, p.33).

One primary issue in early practice was how to gain recognition of the PA professional for practicing in the medical realm. This issue was particularly difficult because most healthcare practices required licensure, and licensure was something those creating the profession sought to avoid. At the start of the career, with the physician dependency and no prescription or diagnostic privileges, professional recognition could be achieved without licensing (United, 1976). For the emerging, more comprehensive PA role, obtaining a license was inevitable, however.

Early in the profession there were several prototypes, each with its own set of education and regulation processes. In 1970, the attempt to standardize the career was implemented by the National Congress on Health Manpower. They sought to create uniform terminology and eliminate confusion with a sufficient title for this new profession (Hooker, 2003). The next attempt to achieve some structure for the career was undertaken by the Board on Medicine of the National Academy of Sciences. The board tried to group the profession into three distinct categories. This new category system was unsuccessful due to the wide range of roles PAs have in different healthcare fields. Another factor in the failure of the category system was the classification that would be applied to the existing programs of physician assistant studies (Hooker, 2003). Several older publications on the physician assistant career and developments mention this level system.

By the early 1970s, there was a tremendous need for support and structure for this new career, and the federal government intervened and created legislation for the

introduction of more educational programs and increased support for the profession. The new programs were flexible in their curricula, but they had to incorporate three major objectives established by the Health Professions Bureau (Hooker, 2003). Flexibility of each program, outside of the basic objectives, has led to the nonconcruency that introduces confusion when entering the profession presently. Two organizations were created to help establish many current regulations and practices in the profession: the Accreditation Review Commission on Education for the Physician Assistant (ARC-PA) and National Commission on Certification of Physician assistants (NCCPA).

When the PA career finally became established, the process of legal issues for practicing medicine had to be addressed. How the PA obtains licensure, registration, and certification, which were the state board regulations, needed to be outlined. The procedure for what needs supervision and when prescribing privileges can be used was an additional issue. The major legal constraints were within each state's specified regulations (Schafft, 1987). These regulations restrict the practicing physician regarding the work tasks they distribute to their PA. The variation of regulations from state to state is one major constraint on the profession, as illustrated by Sekscenski, when he asserted that this variability has led to barriers in practice effectiveness in a number of states (Hooker, 2003).

Efforts to provide regulations for the profession were underway, as well as, the focus on cohesion in the education curricula. The standard became the graduation from an accredited PA program and the passing of the PANCE, the PA review course for the Physician Assistant National Certifying Exam (AAPA, 2004). Under this standard the programs that were accredited have changed over the years, as well as the accreditation criteria for these programs. Many of these changes were implemented because of medical

advancements, but some were just changes that occur along with the development of new programs. The criteria labeled the "Essentials" for the PA profession have been updated in 1978, 1985, 1990, 1997, and 2000 (Hooker, 2003, p.34). These updates presented challenges for future PAs to obtain the most current requirements and to gain acceptance to these changing programs. Since changes will continually occur in medical professions, it is necessary to have as many avenues to present these new changes and to explain the necessary steps for fulfilling these new requirements.

Current Practice

Having established that the physician assistant profession is a solid and structured occupation, presently practicing PAs and current trends should be addressed. When the career was first developed, those individuals responsible for creating the career did so to provide the primary care field with more assistance and to better serve the needy and rural areas. However, as the physician assistant career grows, there is a shift from Pas in primary care practice to more Pas in specialty practice. This is a shift that has correlated with the physician in their working area demographics. There are still more PAs in primary care with twenty-two percent versus the inner city's nine percent, despite this movement to special areas of healthcare (AAPA-DRDS, 1997). As the career changes, there has been a general decrease in student age and attendance in PA programs. The typical age of the PA graduate is currently thirty-three years down from age forty-seven, and the median age of a PA actively practicing has been determined to be forty-two (AAPA-DRDS, 1997). In the 1990s, the average PA was a woman of thirty-three years. This current PA profile is very different from the first class of PAs who were all male navy corpsmen. The most current PA class of 2003 consisted of sixty-five percent women. In 2002, approximately 59,000 students

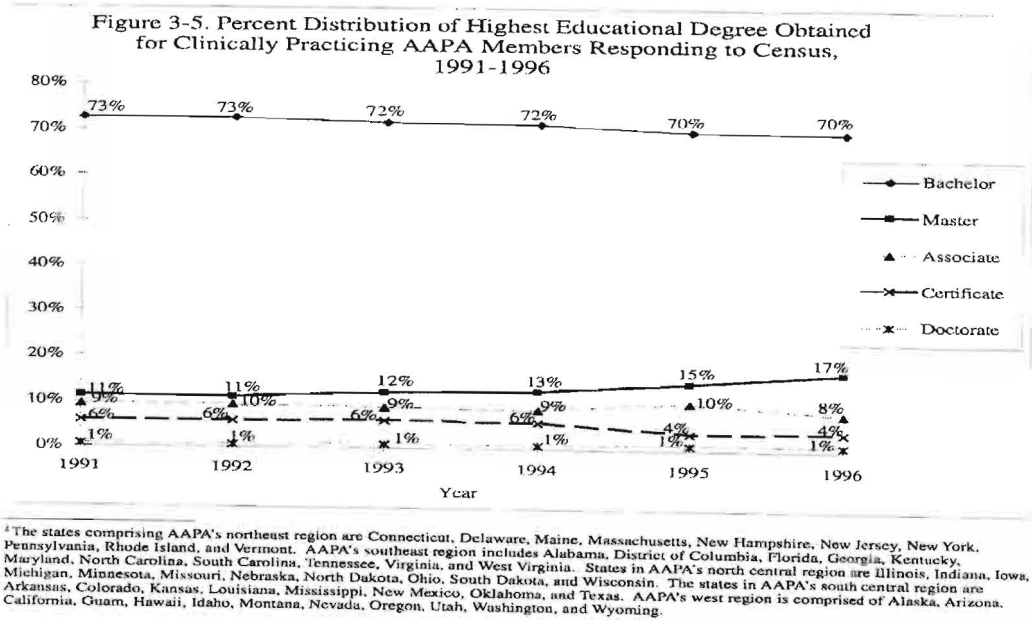
graduated from PA programs, and more than 40,000 are active in the PA profession (Hooker, 2003, p.43). This career has a very high rate for those trained as PAs to continue practicing, approximately eighty-five percent. This high percent for continuance suggests career satisfaction in this evolving healthcare occupation (Sadler, 1976).

Current Educational Achievements and Requirements

The area of this new career that has changed the most radically has been the educational requirements to obtain the PA licensure. The career started as a certificate program with individuals being able to intern with a physician and take a certifying exam to become a physician assistant. Eventually, the governing organizations had to alter the educational program for physician assistants to compete with other similar programs and to maintain the reputation they had worked hard to achieve in the medical profession.

Currently, the highest degree documented that a PA has achieved is a masters educational degree. Approximately ninety-four percent of current graduates have a bachelor's degree. This trend is reflective of programs evolving into bachelor's programs, in contrast to the earlier certificate curriculum (Hooker, 2003). This is the change that the governing organizations felt needed to be implemented so that the PA would meet the current Accreditation Standards for the career and parallel other similar programs, most notably the Nurse Practitioner. A nurse practitioner is "a registered nurse [RN] with advanced education and training" (United, 1976, p.2). An interview with current Orthopedic Physician Assistant Ben Hux revealed the job responsibilities are very similar, basically the education provides the distinction between the professions (Personal Interview, September, 30, 2003). Job market competition was another major factor for the increase in education. Because the PA was created due to a shortage in medical doctors in the 1960s, an effort to prevent the

medical field from becoming saturated with PAs in the future increased educational requirements. Overall, for professional legitimacy a bachelor's degree is needed, as established by the APAP for mastery of the PA program (Hooker, 2003). The APAP felt students should receive a minimum of a bachelor's degree for completing the coursework in the program. Even with this change, many receive a Master's degree upon completion, because of the number of current graduates already holding a Bachelor's degree when entering the program. Below is an illustration of this trend, taken from the *American Academy of Physician Assistants Division of Research Services,* (Kraditor, 1997, p.18):



[1]The states comprising AAPA's northeast region are Connecticut, Delaware, Maine, Massachusetts, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, and Vermont. AAPA's southeast region includes Alabama, District of Columbia, Florida, Georgia, Kentucky, Maryland, North Carolina, South Carolina, Tennessee, Virginia, and West Virginia. States in AAPA's north central region are Illinois, Indiana, Iowa, Michigan, Minnesota, Missouri, Nebraska, North Dakota, Ohio, South Dakota, and Wisconsin. The states in AAPA's south central region are Arkansas, Colorado, Kansas, Louisiana, Mississippi, New Mexico, Oklahoma, and Texas. AAPA's west region is comprised of Alaska, Arizona, California, Guam, Hawaii, Idaho, Montana, Nevada, Oregon, Utah, Washington, and Wyoming.

Figure 1. Educational requirements from a census collection, 1991-1996.

This graph shows the current education requirement is predominantly a Bachelor's degree, thus supporting the conclusion that at least a bachelor's degree is needed to be competitive in this program.

Regardless of the type of degree obtained upon completion, the PA presently has to be certified as a condition for their employment. Although certification in the past was not

needed everywhere, approximately ninety-five percent of PAs have achieved certification (Hooker, 2003). This certification is acquired only after completing the PA program and passing the certifying exam.

Information for Future Southeast PA Students

Despite all of the organizations created to establish unity in the profession, the early development under the loose objectives mentioned earlier still remain, to some extent. The attempt to generalize the requirements that are most needed and the processes that all applicants should take will be discussed in the remainder of my report in an effort to remedy confusion for my focus group: college students.

Since the task of creating a uniform information source for the entire United States would be unrealistic for my research time constraints, I have chosen to investigate only the programs from states that border Tennessee. My investigations into the educational requirements will be my central focus, but I will include other processes for entrance. Many programs have similar requirements, which means, to make yourself more marketable you must take a vast array of classes to be eligible for more programs. Another setback with educational requirements is the aspect of detailed courses required as prerequisites for some of these individual programs. As with most prospective college students, knowing which programs you want to go into once you receive your bachelor's degree is not common. Thus, if you have specific courses that must be taken before entrance into the program of your choice, the undergraduate school you enroll in, may or may not offer that particular course

Using a spreadsheet, I have listed the major Physician Assistant programs in Tennessee and bordering states. This spreadsheet allows those students interested in each school's varying requirements to compare other schools in the same area very easily. This

data, as displayed below, shows the variation from one program to the next for the most frequently required programs.

Undergraduate Courses	Number of programs
Human Anatomy and Physiology	16
Chemistry	14
Microbiology	14
Psychology	10
Biology	10
Mathematics	8
Organic Chemistry	7
Biochemistry	7
Medical Terminology	5
Sociology	4
Genetics	2
Computer Science	1
Public Speaking	1

Figure 2. The above graph shows the most frequently required courses for the eighteen programs in Tennessee and bordering states. Basic bachelor's degree requirements are excluded from this data.

Most PA programs require the following five courses: human anatomy and physiology, psychology, general chemistry, microbiology, and general biology. The more specific requirements that are frequently seen are organic chemistry, biochemistry, psychology (usually a variation of which field), and mathematics (mostly statistics). The data I have compiled suggests very few programs specifically requested genetics and medical terminology, out of the more advance classes requested. All of the schools, except Southwest Missouri State, have a structured listing of the pre-program requirements on their websites; however, none of the programs demand the same requirements for the courses needed before acceptance into each program. This is a clear demonstration why a prospective student would need a guide to help choose the correct program and correct undergraduate curricula to satisfy pre-program requirements for physician assistant school.

The question now becomes, what education avenue do you take? Completion of the following course requirements: human anatomy and physiology, psychology, general chemistry, organic chemistry, microbiology, general biology, and cell biology, would make an individual eligible to apply to only four of the eighteen schools surrounding Tennessee. If you choose to also complete general and developmental psychology and statistics, then the available programs include ten out of the eighteen schools. Given these results, the more specialized classes you complete the wider range of programs you become eligible to enter. This assumes a general undergraduate university curriculum has been met (See Appendix A for more reference on this topic). Unlike medical schools, where pre-med emphasis at undergraduate levels is sufficient academically for entrance considerations, PA programs are much more diverse and do not target recent graduates of undergraduate programs. Physician assistant programs focus on more experienced applicants, such as previous EMTs, radiologists, and other such medical personnel.

Overall, program requirements vary considerably when establishing course requirements, work experience, and application procedures. This variation is the focal point for compiling this data and distributing it in one easy to view format so prospective students do not become as overwhelmed with the amount of research and investigation it takes to compile and compare this data from multiple sources. The research here is focused on providing a comprehensive source for college students when choosing their educational path.

Required Work Experience

Now that the course prerequisites to these programs have been discovered and students have direction about what is required of them educationally, I will begin to explore the work experience requirements. Every program will require healthcare experience, but the

degree of experience an individual should have is also individually decided among each school. The rationale behind the requirement of such experience is to have entering students become familiar with the process and terms used in a medical setting before entering the intense training of a PA program. This familiarity allows students not to be so overwhelmed when entering a more intense medical educational program. As with the array of course requirements the number of experience hours range as well. The spreadsheet located in Appendix A shows the variations of healthcare experience. Most of the schools expect prior experience. Of the eighteen schools investigated, only eight had specific requirements on their websites. Average experience needed among these eight schools at least six months with the highest experience needed being one thousand hours. Almost every school requires prior experience, but most programs want you to actively question this element of the application with advisors at each program.

The experience most programs specify is actual work experience in the healthcare field and not just a shadowing position. The volunteer and shadowing experience does make your profile look considerably better when applying however. Most schools recommend a shadowing experience to confirm career goals and expectations. Those interested individuals wishing to apply to a physician assistant program to gain this necessary experience would then contact a local healthcare facility to inquire about volunteer or employment opportunities.

Having completed the process for eligibility into a physician assistant program, the application process begins. This is an in-depth process as well that requires extensive time and effort or the potential students behalf. One very beneficial and comprehensive application that is available to prospective students if the CASPA application. This

application is a generic application for students to complete, which enables them to apply to multiple programs at once. The central application is very structured and organized. The application has also played a big role in some of the cohesion of the programs which participate in the central application process. The only confusion remains with the courses and areas that you cannot complete with this application process. Therefore, one additional step to take if you want acceptance into a certain PA school that has specific requirements, is to also meet the individual school's application requirements. Upon completion of the CASPA, the interested schools will contact you and then you have the option to pick out those schools you would like to attend and complete a further more detailed application and interview process.

Another pathway for applying to the PA program of your choice is to individually apply and complete each schools requirement individually. This process is recommended if you intend to only apply to one or two schools. However, the literature from some school's websites, such as Eastern Carolina University, suggests that you apply to the CAPSA as their method of application processing. One drawback to applying to limited schools and not submitting an application to the CAPSA is the possibility of not being accepted and waiting out an entire year before another class begins.

Conclusions

Overall, my findings suggest that the most productive avenue to pursue, when considering PA programs, is to focus on a general to specific pathway. By a general to specific pathway, I mean, first take all the basic courses and progress to more advanced classes based on what stage of the application process you are in. Are you just considering this career as one of your many options? If this is your position, then taking classes that are

very program specific may not be beneficial if you choose another career goal. Taking general undergraduate degree courses may be the best avenue for undecided students. A student who has made a firm decision to pursue a physician assistant career may want to take the more program specific courses, which will lead to completion of pre-program requirements much more quickly. However, even a student who has established his/her career goal to become a PA, may want to take an array of courses outlined above and on the spreadsheet attached. This would allow the student more options on which schools he/she can apply to for acceptance. After reviewing the data from the PA programs in and surrounding the Tennessee region, my suggestion would be to pursue the third option to make one eligible to more programs. This increased eligibility will allow a student more flexibility regarding program choices.

As the physician assistant profession continues to grow and evolve, many educational PA programs will transform, as well. This continual cycle of grow and development among a career makes the need for research and information to constantly be produced and distributed. The urgency of this distribution is critical in order to eliminate misdirection for prospective students and future PAs. As the healthcare field expands, there will be more and more influx into this realm. This influx brought the PA career into existence and will continue to shape and restructure the career as technology and medical science progress. The success of this relatively new career rests on the shoulders of those governing the programs and existing members of the profession to keep the information current and concise for those individuals just beginning the journey to become a physician assistant.

Vita

Dorothy Allen, is currently finishing her last semester as an Exercise Science major at the University of Tennessee. She has an Associate of Science general degree from Walters State Community College, where she graduated as the Most Outstanding Student of her class. She has completed two preceptorshisps with PAs in different healthcare fields. The first PA she observed was Shana Hackworth, PA-C at the Dermatology Associates of Knoxville, and the second PA was Ben Hux, OPA-C, RN at the Knoxville Orthopedic Clinic. She has also been very involved with other aspects of healthcare, volunteering at two elementary schools as their interning Volunteer Clinic Assistant. She has also devoted her time to assisting with the Blount County Health Festival, organizing and implementing the Walters State Relay for Life concessions and set up, and painting signs for the American Heart Walk. Her contribution to these various organizations and healthcare areas shows Dorothy's continued devotion to the advancements of healthcare.

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Appendix A

Physician Assistant Schools in the States Bordering Tennessee

Colleges By States	Human Anatomy & Physiology	Chemistry	Microbiology	Genetics	Psychology	Mathmatics	Medical Terminology	Sociology	Humanities	Biology	English
Alabama											
South Alabama University *	XX	*XX, Biochemistry (E) Organic Chemistry (E)*	X	*E*	*X*	X, Statistics	*E*			X	
Georgia											
EmoryUniversity School of Medicine	XX (R)	X (Either Organic Chem or Biochemistry)	*X (R)*		X (either Introduction, General, Developmental, or Abnormal)					X	
Medical College of Georgia	RR	XX, Organic Chemistry Additional Chemistry Sequence (O)	X	R	O	O		O		O	
South University	XX	XX, Organic Chemistry	X							XX	
Kentucky											
University Kentucky	XX	X, Organic Chemistry	X		X, Developmental		X	X (or Anthropology)		X	
Missouri											
Saint Louis University	XX	XX	X		X	X		X		XX	
Southwest Missouri State	no info on website have to contact institution										
North Carolina											
Duke Medical center	XX	XX	X			Statistics					
East Carolina University	XX	XX, Organic Chemistry 5 hours, Biochemistry	X		Psychological Statistics	Statistics, Biostatistics	X			X	
Methodist College	X	XX, Organic and Bio Chemistry	X		XX	XX, Statistics					
Wake Forest University	XX	XX, Organic Chemistry Biochemistry both one semster	X			statistics-X				XX, Excluding botany	
MUSC	XX	XX	X			X		XXX	XXX	X	XX
Tennessee											
Bethel College	XX	. Organic Chemistre (R)	X	R		R	R			XX, Cell Biology,Additional Biology (R)	
Trevecca Nazarene University	XX	XX	X		X, Growth and development						
Virginia											
Eastern Virginia Medical School	XX	XX, Organic Chemistry or Biochemistry	X		X, Life Span Development	College Algebr	X			XX	
James Madison University	XX	X (Biochemistry)		X			X				
Jefferson College of Health Sciences	XX	X, 9 additional credit hours in chemistry			X, Additional 3 credits in behavior sciences			3 semesters of social sciences	6 semesters of humanities		
Shenandoah University	XX	XX (one Biochemistry)	X	X	X, Developmental Psychology	X	X				

Appendix A (cont.)

Immunology	Physics	Computer Science	Public Speaking	Require CAPSA	Work Experience
E	*E*				
	O				
					No requirements, recommended
					One Year
				X	
					Minimum of 1,000 hours
					6 months or 1,000 hours
	R				
				X	Recommended
		X	X	X	Incouraged
				X	
				X	0
					Preference, No hour specification

Symbol	Description
X	Required Course
R	Recommended Course
O	Optional Course
E	Extra Points for Completion

Appendix B

INTERVIEW SUMMARY

STUDENT NAME: Dorothy Allen

PLACE AND DATE OF INTERVIEW: Knoxville Orthopedic Clinic by phone 09-30-02

NAME OF PERSON INTERVIEWED: Ben Hux

DEGREE(S) HELD BY PERSON INTERVIEWED: Physician's Assistant, Registered Nurse

PLACE OF EMPLOYMENT AND POSITION HELD: Knoxville Orthopedic Clinic, Physician's Assistant in Orthopedic Surgeon Training

QUESTIONS

What influenced your decision to become a Physician's Assistant?

Hux: The physician he was working for offered him the position and means to become certified if he would work in conjunction with him, so he sort of "fell into the job."

What are your major job responsibilities?

Hux: He sees patients under protocol made by both the Physician and himself. This is a protocol that decides what care he can and cannot do. Basically, he does the same daily activities as a doctor by seeing patients, diagnosing, and delivering care. He also manages patients until they can see a doctor.

What are the distinguishing factors between a Physician's Assistant and a Nurse Practitioner?

Hux: The job responsibilities are very similar. Basically the education is different. The nurse practitioner is trained under Nursing Model and a physician's assistant is trained under a medical model.

Which of these two professions are more advantageous from a doctor's standpoint?

Hux: The decision to hire one versus the other revolves around the setting and environmental need. If the doctor is primarily in an OBGYN setting then a nurse practitioner is more suitable. On the other hand, the cardiovascular areas and surgery usually have employee more physician's assistants.

What are the educational preparations required for this career?

Hux: The areas of arts and sciences are most beneficial, especially the pre-med program. The areas of health sciences are good fields to choose from. Currently one of our PAs

Appendix B Cont.

has a degree in exercise science, as well as, the PA we recently hired.

What are the major benefits of your profession?

Hux: The whole job is great. The hours are definitely good. PAs can choose to be on call or not. When on call, you do not have to go into the office, you just have to be available to answer phone calls. Every third week you have to work a late shift. The schedules for PAs are very open, if you want to be only part-time that is an option, too. The job security is also another benefit.

What are the major drawbacks in your career?

Hux: I honestly love my job. I can't think of any drawbacks.

Are there any changes occurring in the profession currently?

Hux: There are changes happening all the time. Geriatrics will be a very promising field in the upcoming years. Educationally, I do know that many programs are requiring that you have a bachelor's degree and then graduate the PA program with a master's degree. The requirement use to be a certificate program but that is slowly being phased out.

What is the typical salary for an entry level PA in the Knoxville area?

Hux: $55,000 per year.

What would increase my marketability for entrance into PA school, as well as, into the job market?

Hux: Experience in the field. Volunteer in the Healthcare setting, especially under a PA. Nursing homes are good avenues to view the healthcare providers role in geriatrics. Then educationally, you could finish your B.S., obtain a good GPA, and score high on the GRE

How do I obtain an internship with a PA in this area?

Hux: You can contact our office and speak to our site manager, Vanessa Draper or Mo Click. Our office would be happy to let you intern here.

Update:
10-01-02 Ben Hux contacted me to inform me that I was welcome anytime at the Clinic. He said he talked to the office personnel and the said I could intern. I just need to tell them in advance what date I wanted to start.