

# SAAAPA Position Statements and Papers (updated 2001)

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### **1) Unlicensed Medical Graduates (reaffirmed 2001)**

The Student Academy of the American Academy of Physician Assistants recognizes and endorses the UMG Position Paper of the AAPA; and specifically these particularly important points of position:

"The mechanisms of professional credentialing are vital in distinguishing the roles and competencies of different groups of health care providers. Credentialing addresses not only technical expertise and clinical skill, but also an understanding of role and responsibilities. The latter is particularly important for physician assistants. The profession's credibility has been built on acknowledgment of practice boundaries and the value of supervision.

The SAAAPA is concerned, therefore, not that an unlicensed medical graduate or any experienced health care provider may become a PA, but rather that PA credentials would be bestowed upon individuals who do not understand the PA profession and without regard to the quality of care they would provide.

The SAAAPA believes the current eligibility criterion — graduation from an accredited program — is appropriate and should not be changed. The Student Academy also believes that states should not develop or administer other examinations to unlicensed medical graduates or other individuals for the purpose of establishing alternative PA entry standards.

The SAAAPA believes that persons, including unlicensed medical graduates, who wish to obtain credentials as a physician assistant should attend and successfully complete an accredited physician assistant program. Many unlicensed medical school graduates have valuable knowledge and experience. Nonetheless, they must not be labeled "physician assistants" by legislators or bureaucrats in an attempt to bypass quality assurance requirements. Those medical school graduates who wish to practice as physician assistants should attend an accredited PA educational program and pass the NCCPA certification exam. It is the obligation of accredited physician assistant educational programs to evaluate the qualifications of all applicants for admission and not discriminate on the basis of prior medical education. Lastly, it is the obligation of the accreditation and certification bodies to assure that their high standards are maintained."

### **2) Impaired Practitioners/Substance Abuse Education (reaffirmed 2001)**

The Student Academy of the American Academy of Physician Assistants recognizes and endorses the PA Impairment document of the AAPA as it pertains to substance abuse. Insofar as substance abuse, including alcohol, specifically affects the Physician Assistant Student, we encourage physician assistant programs to develop and implement policies, if they have not already done so, consistent with the Drug-free School Zone Act of 1988, as well as institution policies and local and state laws. We also encourage the inclusion in academic curricula of a comprehensive substance abuse education program including, but not limited to: risk factors, signs and symptoms, recognition, and intervention with regard to the general population as well as medical practitioners, including students.

### **3) Multicultural Awareness (reaffirmed 2001)**

The Student Academy recognizes and supports that the AAPA is committed to a policy that respects the ethnic and cultural diversity of all people, and further that the SBOD support efforts toward multicultural awareness, sensitivity, and educational training in PA programs.

**4) Aesculapian Staff Insignia (reaffirmed 2001)**

The SAAAPA recognizes, endorses, and promotes that all student societies adopt the Aesculapian Staff (one serpent, one staff; similar to but not the AAPA official logo) rather than the Caduceus Staff as the insignia used in the promotion of the PA profession.

**5) Health Insurance (adopted 1998)**

The SAAAPA supports the idea that basic health insurance be available to all PA students (and their dependents) enrolled in APAP member PA programs.

**6) Student Leadership Position Paper (adopted 1999)**

**POSITION PAPER ON STUDENT LEADERSHIP**

**STUDENT ACADEMY  
OF THE  
AMERICAN ACADEMY  
OF PHYSICIAN ASSISTANTS**

**January 1999**

# INTRODUCTION

The theme of the 1997-1998 Student Academy of the American Academy of Physician Assistants' (SAAAPA) Board of Directors was "Leadership is for Everyone," and this sentiment was put into action throughout the year. For example, the student Regional Communications Committee (RCC) was established and works to ensure the success of the Student Track at each of the American Academy of Physician Assistants' (AAPA) regional meetings. Also, the position of Student Minority Affairs Representative was created at the student society level, allowing for greater involvement of individual students to promote diversity. Finally, through the "Leadership Spotlight" section of the SAAAPA homepage, PA students from around the nation are showcased for their leadership skills and involvement within the PA profession.

These efforts at promoting student leadership have been a great success and the concept of leadership for everyone has firmly taken root at the student level. At the 1998 AAPA annual conference, the Assembly of Representatives (AOR) of the Student Academy charged the incoming Student Board of Directors with creating a position statement that supports the leadership development and professional involvement of students. This document is the realization of that resolution. It has been fully endorsed by both SAAAPA and the Association of Physician Assistant Programs (APAP).

# WHAT IS LEADERSHIP?

Simply defined, leadership is the process of envisioning where a group is going and then guiding that group in getting there. However, ask anyone who has ever been in such a position and they will tell you that nothing about being a leader is ever simple. On the contrary, it takes a great deal of vision, dedication, and hard work to survive and prosper at leadership. Yet, all around us are the success stories -- both great and small -- of leadership in practice. Several components, represented by the acronym PERFORM, best summarize the behaviors necessary for effective leadership.<sup>1</sup> Taken as a whole, these components serve to clarify the definition of leadership in a more global and practical sense. The components are: purpose, empowerment, relationships, flexibility, optimal productivity, recognition, and morale.

- **Purpose.** Leaders have a clear view of the group's purpose. They develop mutually agreed-upon and challenging goals that clearly relate to this vision. All members of the group are invested in and share a common sense of this purpose, and each member understands his/her individual role in fulfilling the purpose.
- **Empowerment.** Leaders are confident about the group's ability to overcome obstacles and to realize its vision. A sense of mutual respect enables members to share responsibilities, ask for help, and take initiative to meet challenges. Clearly defined expectations enable leaders to do their jobs easily. Because they embody collective as well as personal power, leaders can provide opportunities for group members to grow and learn new skills.
- **Relationships.** Leaders take the time to make a relationship with all group members and also encourage group members to form relationships with one another. There is an atmosphere of trust, acceptance, and a sense of community. Group cohesion is high, and open communication is practiced by all. Effective leaders consider listening as important as speaking. As such, they encourage group members to share their thoughts and opinions.
- **Flexibility.** Leaders are flexible and perform different tasks as needed. The strengths of each group member are identified and utilized, and leaders work to coordinate individual efforts. The group is open to all ideas. Most importantly, leaders recognize the inevitability and desirability of change and then adapt to changing conditions.
- **Optimal Productivity.** Leaders work with their group to produce significant results. Inherent to this is the ability to delegate responsibilities. Effective leadership involves giving group members important tasks and then allowing those members to get the job done. Leaders are committed to high standards and quality results and are

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<sup>1</sup>Blanchard-K, "Creating Top Teams," *The Toastmaster*, June 1993, pp. 8-10.

able to encourage the same in their members. This requires effective decision-making skills and problem-solving methods to be in place before beginning a project. Successful leadership includes a strong ability to produce results.

- **Recognition.** Leadership thrives on recognizing individual and team accomplishments by celebrating milestones, achievements, and events. Members feel highly regarded within the group and experience a sense of personal success in relation to their group contribution.
- **Morale.** Leaders are confident, committed, and optimistic about the future. They convey to the group excitement about individual as well as group accomplishments. Leaders instill a sense of enthusiasm and pride in belonging to the group. This is an invaluable element, as it translates into a high degree of satisfaction in working with the group.

Of these components, two are essential to successful leadership: optimal productivity and morale.<sup>1</sup> To achieve results and enjoy doing it, specific behaviors are necessary. Leaders can either provide direction (to increase productivity) or provide support (to increase morale).

Providing direction can be accomplished in three forms: structure, control, and supervision.<sup>1</sup> **Structure** is necessary to make progress. This can come from an agenda, asking questions to clarify roles and specifically outlining goals and objectives. **Control** can be used to help a group stick to an accepted plan. This involves helping the group to focus and limit its activities. **Supervision** allows for monitoring and evaluating how the group is doing in reaching its goals. Leaders may provide additional information, make a suggestion, or recast assignments.

Providing support is integral to a smoothly functioning team and can best be given in three ways: praising, listening, and facilitating.<sup>1</sup> **Praising** in a sincere, specific manner has been proven time and again to be one of the most effective means of positive reinforcement. Praise should be focused on a particular skill or accomplishment. This positive feedback also encourages others to be involved in the group. **Listening** is an invaluable behavior for a leader. It is imperative for effective communication and can be demonstrated by using verbal cues such as paraphrasing and nonverbal cues such as head nods. **Facilitating** is necessary to help group members in interacting. This can be accomplished by either leading a discussion or encouraging quiet members to contribute. Facilitating moves the group toward its goal in a way that maintains high levels of participation and commitment.

Having outlined a clear and concise discussion of the necessary components and behaviors of leadership, it is also helpful to list some characteristics that are detrimental to leadership. The "**Seven Deadly Sins of Leadership**" are as follows:<sup>1</sup>

- Trying to be liked rather than respected
- Not asking members for their advice and help
- Not developing a sense of responsibility in team members and not expecting it from your peers
- Emphasizing rules rather than skills and thwarting personal talent
- Not keeping criticism constructive
- Ignoring complaints
- Keeping people uninformed -- not respecting their right to know

Truly, leadership is for everyone. With practice, the timing of these components and behaviors will improve and become routine for all leaders. When this happens, the group can easily PERFORM and will be well on its way to being another leadership success story. However, it is clear that this necessary practice of developing leadership skills is time-consuming. Students, especially physician assistant students, are already pressed for time, but the benefits they will reap through professional leadership and involvement will contribute significantly to their role as PA students and finally as PAs.

# THE IMPORTANCE OF PROFESSIONAL INVOLVEMENT

There are many advantages for PAs and PA students who get involved with their professional association. In a broad sense, involvement develops and promotes their professional "identity." What does it mean to be a physician assistant and what does it mean to be a physician assistant student? These questions have different answers for different people, but the framework of the profession has been laid out by the AAPA --including a mission, a vision, and a code of ethics that is enforced through its members. Membership and involvement in one's professional society send a message to employers, patients, and fellow PAs of pride and respect for what a physician assistant is and does. It has the added benefit of providing visibility and recognition for those outside our profession. Although the number of PAs is growing every day, the term physician assistant is not yet a household word -- but we are drawing closer to that goal.

SAAAPA is based on the graduate Academy, so the tenets cited above apply to both students and graduates. Those students who get involved early tend to stay involved. They take the necessary responsibility for their own future and the future of their peers by taking charge not passively waiting for it. The activities available to students through the AAPA are an invaluable part of their education and provide rewards that are sometimes surprising. In addition to clinical medical education, the student gains very practical benefits such as networking skills and employment development. The people one meets at conferences can be the source of a wonderful new job -- perhaps not today, but somewhere down the road.

In today's volatile health care climate, changes take place swiftly and not always in a very obvious way. It is difficult to stay on top of all issues when one is trying to keep current on clinical issues and do well as a student. There is safety in numbers, however. The AAPA has staff whose job it is to keep their fingers on the pulse of these issues. This, combined with members across the nation, gives us a shared responsibility and pooled resources so that our eyes and ears are constantly alert to the nuances of today's medical climate. There is a much greater impact when trying to influence those in Washington or even on the board of directors at your community hospital when you have the backing of many. We as physician assistants have an enormous advantage in our numbers as well. Our Academy speaks with "one voice," although there are many individual members, which means that our impact is not diluted by different factions. When change is necessary, it is imperative to have solidarity; through the AAPA, PAs achieve that goal.

With all the advantages of membership, there is one other aspect that is very important: professional responsibility. As we take from the pool of benefits and information, so must we put back. Each voice is important and all members of this profession have a responsibility to speak to issues that are important to them. In the next 5 to 10 years, there is a potential for more than half the total Academy membership to be made up of new graduates. We have made great strides for physician assistants and physician assistant students in all settings, but to keep the profession going in the right direction, we need to hear from all the diverse groups that make it up. Who best to bring forward the unique talents and fund of knowledge that each student has than the students themselves?

The importance of professional involvement cannot be underestimated during these changing times in the health care industry, and the best opportunity to convey the importance of this involvement to PAs is while they are students. The benefits of involvement, however, are reaped not only by the profession as a whole but also by the individual PA student leaders in all aspects of their professional training. SAAAPA believes that the primary responsibility of the PA student is to focus first and foremost on their PA education, including both didactic and clinical phases of training. SAAAPA also believes that leadership can play an important role in high scholastic and clinical achievement for PA students.

# **HOW STUDENT LEADERSHIP AND INVOLVEMENT CAN ENHANCE SCHOLASTIC ACHIEVEMENT AND CLINICAL SKILLS**

The leadership skills that PA students develop through professional involvement on many levels contribute positively toward their function and role as a student. Leadership skills can be displayed in a variety of settings, not just while the student is fulfilling professional responsibilities. A student can be a leader in scholastics as well as a leader in multiple clinical settings. Fostering leadership skills in PA students only serves to create better PAs. Being a student leader on any level of the professional organization and attending organizational activities is a privilege. This privilege can serve to further increase the student leader's performance, both clinically and scholastically. A PA student leader is more likely to work harder to achieve high standards in academics and on clinical rotations in order to keep such a privilege.

PA student leaders feel compelled to set the example of high scholastic achievement. This stems from the skills that are developed through actual leadership experience. Scholastic achievement should be a prerequisite to participation as a student leader in the professional organization. Maintaining acceptable standards for scholastics helps to ensure that extracurricular leadership activities will not interfere with PA education and training. Being a PA student leader at any level of the organization does entail increased responsibilities, but this will benefit those students who take on this responsibility. Students develop efficient time management skills to fulfill their roles as PA student, organization leader, and multiple other roles specific to each student leader.

Another positive aspect of student leadership is the fact that student leaders may feel compelled to prove to their PA program directors and faculty that professional involvement will not adversely affect scholastic achievement. Many student leaders are willing to go the extra mile to achieve higher marks in academics. This positive aspect is also apparent in the clinical setting. Student leaders strive to prove to their clinical preceptors that their PA education and skill development on rotations come first. This translates into students working that much harder to gain all the knowledge they can on the rotation and devote significant time outside the rotation studying about that particular area of medicine or surgery.

On clinical rotations, PA student leaders feel compelled to set the example of the proficiency in skills and dedication to learning that has been a cornerstone of the physician assistant profession for decades. Student leaders are a reflection of the AAPA and the PA profession. This responsibility compels them to live up to that reflection and show patients, fellow students, graduate PAs, and other medical professionals that they are dedicated first and foremost to the practice of medicine and that their involvement in the AAPA serves to deepen that commitment.

# HOW TO PROMOTE STUDENT LEADERSHIP

Encouraging PA students to become active leaders at all levels of SAAAPA and facilitating that commitment serves to strengthen the student professionally, personally, scholastically, and clinically. By promoting student leadership in the profession, program directors and faculty will enhance the leadership skills of their students in all settings, reflecting positively on the PA profession as a whole.

There are multiple professional levels in which PA students can become involved and develop their leadership skills, including student society, community, state, regional, and national levels. All these levels of involvement are crucial to fulfilling the vision of the AAPA that PAs become worldwide leaders in health care. Program director and faculty support of PA student involvement and leadership is crucial to the success of cultivating student leaders. The following section specifies how PA programs can encourage their students to become leaders at all levels of the profession.

## **Student Society**

Every PA program is allowed a student society. It is a simple process to become a recognized student society. A motivated faculty advisor is the key to the success of the student society. Therefore, the selection of an energetic student advocate is encouraged. A faculty advisor training program has been developed for presentation at APAP meetings. The newly appointed faculty advisor should be encouraged to attend.

The next step is to form a student society in a new program or to facilitate the continuation of a student society in an existing program. To register the student society, a class officer list, a class roster, and student society bylaws must be sent every year to Cyndi Brown at the AAPA, 950 N Washington Street, Alexandria, VA 22314-1552. It is recommended that registration occur as soon as possible after the incoming class starts. SAAAPA also encourages the incoming class to select the Assembly of Representatives (AOR), House of Delegates (HOD), and the Student Minority Affairs Representative (SMAR) by November of the year they start the PA program.

To facilitate an active and strong student society, the faculty advisor should encourage regular class meetings and various fundraising activities. A student society mailbox/slot placed in a central location is highly recommended to place mail from the AAPA, SAAAPA, the regional chair, or a constituent organization. Assistance is available from several sources on setting up a student society. There is a *Student Society Handbook* mailed out every August; copies may also be obtained from the AAPA national office. SAAAPA has a Student Society Mentoring Program in which well-established student societies assist newly forming student societies. As stated earlier, there is a faculty advisor training program through APAP. SAAAPA has developed a presentation entitled AAPA, SAAAPA, and You that may be loaned to a student society. More individual assistance is also available by contacting Cyndi Brown at the AAPA.

## **Community**

PA students should be encouraged to participate in community activities that promote leadership as well as medical knowledge. Examples of community activities include volunteering at homeless shelters,

AIDS projects, hospice care, and speaking at health fairs and/or at high schools regarding the PA profession. Another activity would be to promote the AAPA President's Annual Philanthropic Project by linking student community activities with a worthy cause. Community involvement can even be a mandatory part of the class curriculum.

### **State**

PA students should be encouraged if not required to attend their state chapter continuing medical education conference. The PA program could work with the state chapter to allow students to volunteer as moderators, at the registration desk, or in other ways as needed. PA students could be required to write a summary of what they learned at the conference as a class assignment. Other ways to increase involvement in the state is to work with the state chapter to encourage students to become members of committees. In addition, the AAPA has a constituent organization mentoring program to match a student to a state PA leader. Mentoring fosters leadership skills and allows the student to learn in a non-threatening environment. Students possess energy and fresh ideas. They are excited about the PA profession. Students who are encouraged to serve as committee members will be more likely to continue to serve as graduates. They represent the future pool of state leaders, therefore, early involvement leads to retention.

### **Regional**

The AAPA's Regional Meetings have continued to produce successful student tracks. Part of this success is due to five well-organized Regional Communications Committees (RCC) for the Student Academy of the AAPA. The RCC chairs are appointed at the AAPA's annual conference during the Assembly of Representatives. It is a great way for students to get involved and serve as leaders -- especially those students who do not have the time to commit to national leadership. PA students who have demonstrated leadership potential should be encouraged to apply for an RCC chair position. In addition, the student society leaders should keep in close contact with the RCC chair in that region. At the regional meetings, the student track consists of professional issues of importance to PA students. In addition, there are regional medical challenge bowls. The winner of each region is allowed an automatic berth in the second round of the SAAAPA National Medical Challenge Bowl at the AAPA's annual conference. PA students who have shown leadership potential should be encouraged to attend the regional meetings. Also, a group of three students should be formed to attend as the challenge bowl team. One of the best ways to assure student involvement is to fund them, either fully or partially, to attend the regional meeting.

### **National**

As with the state conference, PA students should be encouraged to attend the AAPA's annual conference. They should be encouraged or required to attend and actively participate in the AOR and HOD. PA students with leadership potential should be encouraged to run for office in SAAAPA. As at the state level, they could be required to write a report of what they experienced at the annual conference. As with all meetings, the best way to assure the student is present and active is to fund them. The AOR and HOD representatives are the most crucial students to assist with funding; however, all students could greatly benefit from attending the annual conference.

In conclusion, it is the position of the Student Academy of the American Academy of Physician Assistants that leadership begins the day a PA student is accepted into a program. The earlier this philosophy is incorporated into the future clinician's experience, the more likely it is that the clinician will also be an active participant in this wonderful profession. Our future depends upon the creativity, strengths, ideas, and experience of all who are connected to the physician assistant experience: educators, students, practicing PAs, supervising physicians, lawmakers and others. The more we all work together to promote leadership skills in physician assistant students, the better will be the outcome for the patient -- who is the focus of all of our efforts.

### **7) Pathogen Exposure Recommendations (adopted 2000)**

SAAAPA/AAPA/APAP recommend that PA programs ensure the safety of their students by:

1. Verifying adequate vaccinations upon entering the program.
2. Providing access to adequate health care insurance in the event of injury or major illness, including exposure to pathogens.
3. Insuring that students are adequately trained in universal precautions.
4. Having specific protocols in place regarding post-exposure prophylaxis and counseling.

Students need to take responsibility for their own health. Students are encouraged to utilize the flow sheets provided within this paper. Students should also:

1. Know what to do in the event of an exposure
2. Know what their health insurance covers in regards to post-exposure prophylaxis and counseling before the need arises.
3. Know what they should do in an emergency when on rotations, on weekends, and after hours.
4. Fully utilize universal precautions, protective personal equipment and other safe medical devices when available.

### **8) Endpoint Degree (adopted 2000)**

The Student Academy supports awarding a graduate level degree as the minimum degree awarded Physician Assistant graduates.

## **9) Cultural Competency (adopted 2001)**

### **STUDENT ACADEMY OF THE AMERICAN ACADEMY OF PHYSICIAN ASSISTANT'S (SAAAPA) CULTURAL COMPETENCY POSITION PAPER**

#### **Purpose**

The purpose of this position paper is to address the issue of cultural competency. It is the hope of the Student Academy that as future health care providers, we take the time to learn about how being culturally competent is essential in providing excellent care to our patients.

#### **What is Cultural Competency?**

As we enter a new millennium, we are also entering a new age of health care. As society continues to diversify, it is becoming increasingly important for Physician Assistants (PAs) as health care providers to be educated and aware of our patient's needs in order to provide them with the best care possible.

The Student Academy of the American Academy of Physician Assistants (SAAAPA) is committed to furthering the understanding of cultural competency. The Student Multicultural Affairs Committee (SMAC) of the Student Academy is responsible for addressing the needs of all PA students and conveying any and all concerns regarding issues of cultural competency and diversity to the Student Board of Directors. This committee is overseen by the Director of Multicultural Affairs (DMA), in consultation with the American Academy of Physician Assistant's (AAPA) Committee on Diversity (COD). To meet these goals, the SMAC has formulated the following mission statement:

**The mission of the Student Multicultural Affairs Committee is three-fold:**

#### **ENCOURAGE AND PROMOTE THE UNDERSTANDING AND SHARING OF CULTURES**

In a society that is becoming increasingly diverse, it is of growing importance for us as future health care providers to understand the needs of our patients and be able to provide for them the best possible care. This includes embracing different cultures, attitudes, and beliefs. We will break down the walls and barriers to communication by sharing and celebrating our diversity, being proactive in promoting diversity and equality, educating others, and by being a positive example in the community.

#### **DEVELOP LEADERSHIP SKILLS AND PROVIDE OPPORTUNITIES FOR LEADERSHIP ESPECIALLY AMONG UNDERREPRESENTED STUDENTS**

Physician Assistant students are the leaders of tomorrow. Great leaders first learn to become great listeners and followers. The SMAC will listen to the needs of the students and follow the examples of fellow leaders in the AAPA. We will encourage participation in Gateways and other mentoring programs to help students develop leadership skills and we will provide guidance when needed. SMAC also encourages every student to be actively involved in individual student societies, state chapters and associations, special interest groups, and societies at the local, regional and national levels. We will provide opportunities where students can get leadership experiences and increased exposure to current SAAAPA and AAPA leaders.

#### **INCREASE INFORMATION BETWEEN STUDENTS AT THE LOCAL, REGIONAL, AND NATIONAL LEVELS**

We will develop literature and make resources available to all students and student societies. Information is the key to success through cooperation and communication. We will maintain a link to those who have gone before us and mentor those that will follow. We have begun a legacy of cultural competency and understanding and dedicate ourselves to pass it on to those who will continue to build upon it.

### **Significance of Cultural Competency**

Cultural competence encompasses all of us. By better understanding the different cultures that we come in contact with, the better we can serve our patients. We recognize that some individuals may have different beliefs and opinions. Acquiring knowledge and skills in diversity should be a top priority of health care professionals. This knowledge and insight provides a foundation for understanding the needs and issues of particular ethnic groups as patients or colleagues. Understanding and paying attention to a patient's cultural characteristics can affect patient care and may lead to effective communication and trustworthy relationships.

Practitioners who aspire to work in cross-cultural contact need to cultivate an awareness and embrace an understanding of their own and the patient's cultural values, beliefs and feelings, and how these influence their attitudes and behaviors toward providing care. For instance, a patient's response to pain varies from culture to culture and a practitioner must recognize and accept the response of pain from each patient as unique to that individual, and perhaps the culture, but should avoid generalizations.

### **Dimensions of Cultural Competency**

All verbal and nonverbal communication must be considered. Messages are conveyed non-verbally through gestures, body movements, posture, tone of voice, and facial expressions. Unless you make an effort to understand the patient's nonverbal behavior, you may overlook important information, which may be conveyed through body language. Communication patterns vary widely among differing cultures – even for such conventional social behaviors as smiling and handshaking. For more detailed information on individual cultural beliefs and practices please refer to the SAAAPA Diversity web site (<http://www.saaapa.aapa.org/>) or within the SAAAPA publication, "Expanding Your Horizons: A Guidebook to Diversity". While practitioners may not be able to memorize non-verbal communication styles of all cultures, an awareness that such differences exist, as well as approaching patients with understanding will leave little room for miscommunication.

Cultural competency in the workforce and classroom can be challenging because of the need to see each colleague both as an individual and as a member of a group. In relating to different cultures, it is critical to consider two concepts – individual uniqueness and group identity. Understanding behavior involves accepting it as part of the individual rather than seeing group identity as one part of a complex individual. For example, if a person is always late to class, it does not mean that lateness is unique to that group identity, but is unique to that individual and their personal experiences.

As PA students, we have an obligation to explore our perceptions of culture and diversity as part of refining our interpersonal skills. Take time to openly discuss cultural issues with classmates and do some research of cultural concepts in health care. These tools of knowledge are invaluable in developing meaningful relationships with patients and your health care team.

### **Benefits of Promoting Cultural Competency**

In a society that is constantly changing, it is of utmost importance that we continue to learn and grow, and increase our understanding and sensitivity of individuals and their needs. This will lead to more amiable and trustworthy relationships between care providers and patients. Patients will benefit by knowing that their primary health care provider understands and respects their needs, it is important for us to be well-versed in issues of culture and diversity, and not only to be able to provide better care to our patients, but also to cultivate a greater appreciation, understanding and respect for others and their beliefs, customs, attitudes, culture, and mores. This will help enable us to provide more personalized care and practice medicine based on the individual.

### Why Does SAAAPA Need Me?

The phrase “the whole is greater than the sum of its parts” is of great value within a group of people who share an idea. However, without the parts, the whole can never be great and vice versa. Different cultures, ethnic groups, different walks of life, and ideas are all parts of diversity and cultural competency. Cultural competency is part of the SAAAPA and therefore a part of the PA profession. Without diversity, the PA profession as a whole can never be great. This is the reason SAAAPA needs YOU!

Within any great group are different ideas - that is what makes them great. Students are an integral part and contribute much to the PA profession. There is probably no other profession out there that acknowledges and encourages student involvement as much as the PA profession. Student leadership in the Academy is very important and taken very seriously. Student leadership and involvement contribute to the greatness of the profession and the AAPA. Although the SAAAPA and the AAPA are great groups, there is always room for growth and maturity. We want to make the SAAAPA even better thus making the AAPA better, but we need your help. The SAAAPA and the profession lack a very important aspect of student and professional involvement. The missing part to our whole is diversity and becoming culturally competent.

Numbers very often spark the attention of those on the outside of a group. Here are a few that we hope grab your attention. In the 1999 New Student Survey the following were reported concerning the diversity of the student population:

<u>Ethnic group</u>	<u>Percentage</u>
Asian/Pacific Islander	7 %,
Black/African American	6%
Hispanic/Latino Origin	6%,
American Indian/Alaskan	1%
White	83%

The percentages within the PA profession among practicing PA’s were very similar:

<u>Ethnic group</u>	<u>Percentage</u>
Asian/Pacific Islander	3.0%
Black (non-Hispanic)	3.1%
Hispanic/Latino	3.6%
Native American/Alaskan	1%
White	89%

(These numbers are rounded so they add up to more than 100%).<sup>1,2</sup>

It is obvious that ethnic and cultural makeup of PA students and practicing PA’s is extremely limited. While our current student numbers are increasingly more diverse, we need your help to continue improve the diversity within our profession.

Why should you become involved in the SAAAPA?

- ◆ You are making a contribution to your profession that will benefit you now and later as a practicing PA.
- ◆ You will have the opportunity to speak your mind about your concerns and the concerns of your classmates.
- ◆ You will help bring a myriad of cultures to the Student Academy and the profession.
- ◆ You will improve the interaction between PA’s and diverse patient populations and thus improve the healthcare that PA’s provide.
- ◆ Educating your colleagues about different groups will heighten their awareness to the needs of others different than them.
- ◆ You will have the opportunity to speak with students from across the country who are in similar situations as you.
- ◆ You will be able to network within the profession by interacting with graduate PA’s.

- ◆ You will learn about great opportunities within the profession that you never knew about.
- ◆ You will understand how valued students are within the PA profession first hand.
- ◆ You will grow not only as future health care professional but also as a person.
- ◆ You will represent those who are not adequately represented.
- ◆ Most of all you will be a role model for others who possess similar traits as you do.

### **Where Can I Get Involved?**

There are a number of opportunities to get involved in leadership roles that specifically deal with issues of diversity. This section will discuss different opportunities and how you can participate. It is important to stress that while we have leadership positions that specifically deal with diversity, these roles are not limited to persons of a particular ethnicity or culture. In fact any person can participate in these opportunities if they have an interest in promoting cultural competency in the profession. More importantly, the converse is true. Persons of a particular ethnicity or culture are not limited to just the roles that promote diversity. The SAAAPA firmly upholds the concept that all students should seek involvement in the position that best suits their skills and strengths. Therefore, no one SAAAPA leadership position is restricted to one group over another.

### **Local Leadership Opportunities that Promote Cultural Competency**

Promoting cultural competency at the local level begins at the student society. SAAAPA encourages each student society to elect an individual to serve as the Student Multicultural Affairs Representative (SMAR). The SMAR serves as the liaison between the Student Academy and the Student Society regarding issues of cultural competency affecting their classmates as future colleagues and primary health care providers. The elected individual should have a strong interest in supporting and promoting the education of students on the issues of cultural competency. With the aid of the SMAC regional chair, the SMAR coordinates local activities and community outreach projects; disseminates information to students regarding multicultural issues that may affect the delivery of health care to various ethnic populations; and serves as the representative to the student multicultural affairs regional committee from their respective PA program.

One of the duties of the SMAR is to coordinate local activities and community outreach projects. One such program is Project Access, which was developed by the AAPA Committee on Diversity, (formerly the Minority Affairs Committee). The purpose of Project Access is to assist student and graduate PAs in going out to predominantly diversified junior highs, high schools and community colleges to promote the health care profession in general and the PA profession specifically. This has traditionally occurred at the AAPA annual conference. This project has been modified for use by individual student societies to take to their local schools and communities. Topics for presentations include an explanation of the PA profession, education and clinical experience requirements for admission, and personal insights on being a PA or PA student. Support materials are available through the AAPA national office. Getting started with a local Project Access or other community service plan is easier than you think. If you have a project that you would like to do, you can contact the local school board and propose your idea. Other ideas are to participate in school career days, volunteer time at free clinics or shelters, and organize your class, faculty and state PA organization to participate. Most importantly, let us hear about your success!

There are other organizations in the community that may assist you in developing cultural competency at your student society and the community. If your PA Program is affiliated with a medical school, try and contact members of the medical school class for diversity projects that may be ongoing. Contact the local chapter of the Urban League for project ideas and assistance. There are many ways to bring the issue of cultural competence to your classmates and to the community.

### **Regional Leadership Opportunities that Promote Cultural Competency**

The Student Multicultural Affairs Committee (SMAC) consists of one student per region and the chair who is the Director of Multicultural Affairs (DMA) for SAAAPA. The DMA is elected at the Assembly of Representatives (AOR) at the AAPA Annual Conference that occurs around Memorial Day every year. The SMAC chairs are appointed each year during the AOR. The responsibilities of the SMAC chairs include disseminating information to

PA students regarding diversity issues, coordinating local activities and community outreach projects with SMARs and assisting in organizing the SMAC roundtable at regional and annual conferences. Individuals interested in serving as the SMAC chair may obtain application forms from the AAPA National office, from the SAAAPA website or at the annual conference.

Each Regional SMAC consists of the appointed regional chair and all the elected SMARs in that region. Monthly communication is strongly encouraged between the SMARs and the SMAC chairs.

### **National Leadership Opportunities that Promote Cultural Competency**

The Director of Multicultural Affairs is elected at the AAPA Annual Conference in the AOR. The DMA, in addition to serving on the Student Academy Board as a full voting member, also serves as a voting member on the AAPA Committee on Diversity. In addition, the DMA is expected to travel to the Student National Medical Association (SNMA) in March with the SAAAPA Director of External Affairs to represent the PA profession.

All candidates for SAAAPA office must maintain communication with their assigned region, interact with many students and other board members via e-mail, attend additional meetings to represent the Student Academy at the direction of the President, present a quarterly report to the Student Academy President as he/she requires, prepare an article for the *AAPA News*, and perform other duties as required by the Student Academy Board of Directors (SBOD).

The DMA specifically serves as chair of the Student Multicultural Affairs Committee, serves as the representative of all PA students and conveys their interest of diversity to the SBOD, coordinates the SMAC Roundtable at the AAPA's annual conference and represents SAAAPA as a member of the AAPA Committee on Diversity

Time requirements for the position include:

- ◆ Student Academy of the AAPA:
  - ◆ Communication averages - 5-8 hours per week
  - ◆ SAAAPA projects average - 8-12 hours per project and there may be 2-5 projects.
- ◆ Committee on Diversity:
  - ◆ 2 days in November and March
  - ◆ Several conference calls throughout the year
  - ◆ Average of 4-5 hours per week
- ◆ SNMA meeting:
  - ◆ 2-3 days in April

There are a number of caucuses that have a diversity contact position that is also available to PA students. The information can be found on the AAPA Homepage, in the membership directory and through the AAPA National Office. Specific caucuses with a particular interest in diversity are listed below:

#### **African Heritage Caucus (AHC) - <http://www.aapa.org/spec/ahc.html>**

Contact: Charlezetta Roberson, PA-C  
9334 Scenic Mountain Lane  
Las Vegas, NV 89117  
Phone: 702/385-1818  
E-mail: [czetta@aol.com](mailto:czetta@aol.com)

#### **First Nations Council of Physician Assistants (FNCPA) – [www.home.pacbell.net/kuczek/index.htm](http://www.home.pacbell.net/kuczek/index.htm)**

Contact: Wabanang Kuczek, MPH, PA-C  
14014 NW Passage #342  
Marina Del Rey, CA 90292  
Phone: 310/821-4134  
E-mail: [kuczek@pacbell.net](mailto:kuczek@pacbell.net)

**PAs for Cross Cultural Involvement (PAXI)** - <http://www.paxi.org/>

Contact: Rebekah Halpern  
950 North Washington Street  
Alexandria, VA 22314-1552  
Phone: 714/842-2420  
Fax: 714/842-2552  
E-mail: [rebekah@icsfm.com](mailto:rebekah@icsfm.com)

**PAs of Asians and Pacific Islanders (PAAPI)**

Contact: Lydia Ong  
Baylor College of Medicine  
1102 Bates Suite 1150, MC-3-2371  
Houston, TX 77030-3498  
Phone: 713/770-4330 ext.4338  
Fax: 713/770-4347  
E-mail: [long@bmc.tmc.edu](mailto:long@bmc.tmc.edu)

**PAs of Latino Heritage (PALH)** - <http://www.aapa.org/spec/palh.htm>

Contact: Tristan Wrench, Executive Staff  
950 N. Washington St.  
Alexandria, VA 22314  
Phone: 800/596-7494  
Fax: 703/684-1924  
E-mail: [palh@aapa.org](mailto:palh@aapa.org)  
Web site: <http://www.aapa.org/spec/palh.htm>

**Caduceus Caucus**

Contact: Ken R. Huard  
2215 Vintage Drive  
Colorado Springs, CO 80920  
Phone: 303/761-2885  
Fax: 215/884-1424  
E-mail: [mcnabb@clsp.uswest.net](mailto:mcnabb@clsp.uswest.net)

**Fellowship of Christian Physician Assistants** – [www.fcpa.net](http://www.fcpa.net)

Contact: Gina Ciolino  
950 North Washington Street  
Alexandria, VA 22314-1552  
Phone: 770/491-3302  
Fax: 703/684-1924  
E-mail: [alan\\_sams@emory.org](mailto:alan_sams@emory.org)  
Web site: [www.fcpa.net](http://www.fcpa.net)

**Lesbian, Bisexual, and Gay Physician Assistants Caucus**

Contact: Mark Behar  
1803 North Warren Avenue  
Milwaukee, WI 53202  
Phone: 414/277-7671  
Fax: 414/933-8298  
E-mail: [mpbehar@facstaff.wisc.edu](mailto:mpbehar@facstaff.wisc.edu)

**Physician Assistant AIDS Network**

Contact: Mary L. Adair  
AIDS Healthcare Foundation

1717 Burnell Drive  
Los Angeles, CA 90065  
Phone: 323/668-4833  
Fax: 323/662-0196  
E-mail: paanmarya@aol.com

**Rural Health Caucus of the AAPA**

Contact: Larry G. Kisby  
P.O. Box 188  
N Bend, NE 68649-0188  
Phone: 402/652-8636  
Fax: 402/652-3616  
E-mail: kisby@aol.com

**Veterans Caucus of the AAPA - [www.primenet.com/~medvets](http://www.primenet.com/~medvets)**

Contact: Sharon Hanley  
100 North Academy Avenue  
Danville, PA 17822-1350  
Phone: 800/272-6692  
Fax: 570/271-5850  
E-mail: shanley@geisinger.edu  
Web site: [www.primenet.com/~medvets](http://www.primenet.com/~medvets)

**References**

- 1) 1999 New Student Survey
- 2) 2000 AAPA Annual Census

## 10) The Use of Technology in Physician Assistant Programs (adopted 2001)

### The Use of Technology in Physician Assistant Programs

*A Report of the Technology Taskforce*

*Student Academy of the American Academy of Physician Assistants  
Alexandria, VA*

*The 1999 Assembly of Representatives (AOR) of the Student Academy of the American Academy of Physician Assistants (SAAAPA) passed a resolution that " SAAAPA survey all APAP programs to determine the current usage and availability of technology resources, and assess the desire of students for education in technology issues." A questionnaire was developed by a SAAAPA convened Technology Task Force and endorsed by the Association of Physician Assistant Programs' (APAP) Research and Review Committee. One hundred and twenty electronic surveys were mailed to all provisionally and fully accredited APAP member programs in existence at the time of the mailing. There were 86 returned surveys for a 72% response rate. 23/86 (27%) programs require that students have a personal computer. 79/86 (92%) programs stated they do or will within the next two years provide internet and email access to faculty or students at no cost. 81/86 (94%) of programs utilize PC (Dell, IBM, etc). 71/86 (83%) programs utilize Microsoft Windows (95, 98, NT or 2000). 56/86 (65%) programs stated they either do or plan to provide within the next two years all or part of the pre-clinical curriculum via a computer based educational program instead of classroom or lab experience. 56/86 (65%) programs stated they do or plan to provide within the next two years electronic coursework or exams during the clinical phase of training. Despite these technological changes only 13/86 (15%) felt that a PA could be trained electronically in his/her hometown by electronic means and still receive an adequate education to practice as a PA.*

#### **Introduction**

Computers are increasingly becoming a more integral part of modern healthcare. The 1999 Assembly of Representatives (AOR) of the Student Academy of the American Academy of Physician Assistants (SAAAPA) recognized this trend and chose to evaluate the current status of computer usage and various other technologies. The 1999 SAAAPA AOR passed a resolution that " SAAAPA survey all Association of Physician Assistant Programs (APAP) member programs to determine the current usage and availability of technology resources, and assess the desire of students for education in technology issues." The 1999-2000 SAAAPA Board of Directors commissioned a Technology Taskforce to study the current level of computer utilization in medical education including, but not limited to PA education, and to further offer recommendations regarding the future of this issue. A complete list of Taskforce charges can be found in Appendix A. Mr. Ian Marks, a George Washington University PA student, initially served as Taskforce Chair, however, due to personal reasons, Mr. Marks resigned his appointment in April 2000. Since that time, Ms. Cori Conner, PA-C, SAAAPA Vice-President, has chaired the Taskforce. Taskforce members include:

Michelle DiBaise, MPAS, PA-C, SAAAPA Graduate Advisor  
Jeremy Heinerich, PA-C, SAAAPA Director of Internal Affairs  
Jennifer Huey-Voorhees, MPAS, PA-C, SAAAPA Immediate Past President

#### **Background**

The usage of computers and technology in medical education was studied and proposed as early as 1986 when a report entitled *Medical Education in the Information Age*<sup>1</sup> stated that "Medical informatics should become an integral part of the medical curriculum. The teaching of medical informatics should include opportunities for specific instruction in its fundamentals, as well as adequate examples of its applications throughout the medical curriculum." Given the sharp rise of computer-based models within all aspects of education, SAAAPA was interested in

researching the current technologic opportunities available to PA students via a detailed survey instrument and then comparing such data to that of other healthcare professions.

### **Methods**

The survey instrument developed by the Student Academy of the American Academy of Physician Assistants Technology Task Force (see Appendix B) was submitted to and approved by the APAP Research and Review Committee. It was then sent electronically in two separate mailings to the 120 APAP member programs in existence at the time of the mailings. This included both provisionally and fully accredited programs. The results were tabulated and response percentages provided below.

### **Results**

86 surveys were returned for a response rate of 72%. In response to the first question "Does your program require a personal computer (Laptop, desktop) for every student?", 23 (27%) programs stated yes; 63 (73%) programs stated no. Of the programs that do require a personal computer, 7 (30%) programs stated the cost is covered in tuition; 16 (70%) programs stated it is not covered in tuition. However, a majority of the 16 programs that do not cover the cost of the computer in tuition stated that financial aid is made aware of the requirement so that the aid package available to students may be potentially increased to meet this cost. Of the programs that do not currently require a personal computer, 19 (30%) programs stated they plan on such a requirement within the next two years; while 43 (68%) programs do not plan on requiring a personal computer. One program stated they require the student to have access to a computer but do not need to personally own it. Using these numbers, within two years, 42 of the 86 (49%) responding programs will require that students have a personal computer in order to complete their educational program.

The next question looked at internet and email for faculty and students. 3/86 (4%) programs provided only faculty with internet access that includes software and a password to access various Internet Service Providers (ISPs) to utilize the World Wide Web; 37/86 (43%) programs offered internet access to both faculty and students while 46/86 (53%) programs provided no internet access. Of the 46 programs that did not provide internet access, 2/46 (4%) programs provided only faculty with email access that includes software and a password to access and send email only or a password to access and send email at designated computers within the program; 35/46 (76%) programs offered both faculty and students with email access; and 9/46 (20%) did not provide any access to email. Of the 9 programs which provided no internet or email access, 2/9 (22%) stated they would do so within 2 years while 7/9 (78%) stated they would not do so. Therefore, according to these numbers within two years, 92% of the respondents will provide internet or email access to faculty and/or students at no cost.

The next issue dealt with the operating system in use. 63/86 (73%) programs that responded stated they had standardized on a single operating system whereas 19/86 (22%) had not. Of the operating systems in use: 81/86 (94%) stated they used a PC system (Dell, IBM thinkpad) and 5/86 (6%) stated they use Macintosh. The system used in the PC's included Windows 95 (20 programs); Windows 98 (39 programs); Windows NT (11 programs); and Windows 2000 (15 programs). The increased number of programs by system compared to respondents occurred due to some programs reporting more than one system as they are in the process of upgrading their current system, however 71/86 (83%) utilized some form of Microsoft Windows.

The next issue dealt with whether the program had standardized on a single office suite. 66/86 (77%) programs stated they had; while 18/86 (21%) stated they had not; 2/86 (2%) did not answer the question. 65/66 (98%) programs that had standardized their office suite stated they use Microsoft Office and regardless of standardization, 73/86 (85%) programs stated they used Microsoft Office. 1/66 (2%) programs utilized Corel WordPerfect as their sole office suite, but 8/86 (9%) programs utilized Corel WordPerfect either alone or with another office suite package. One program also reported using FileMaker Pro in addition to other office suite software.

The survey next turned to the use of technology in the various phases of study. The programs were asked if they required a formal medical informatics course during PA training. 27/86 (31%) programs stated they do require such a course whereas 59/86 (69%) stated they do not. Of those programs that stated they require a medical informatics course, 20/27 (74%) programs stated that at least 90% of the course is provided in an electronic format, while the

remaining 7/27 (26%) programs did not do so. 19/59 (31%) programs stated they planned on doing so in the next two years whereas 40/59 (68%) programs had no plans to do so.

In the pre-clinical phase of training, 30/86 (35%) programs stated that all or part of the curriculum is delivered via a computer based educational program instead of classroom or lab experience, whereas 56/86 (65%) programs stated that no portion of the curriculum was delivered via a computer based educational program instead of classroom or lab experience. The portions taught electronically were varied (see Appendix C). 1/30 (3%) programs stated that all of the pre-clinical phase curriculum was taught in part electronically. Of the 56 programs that do not currently provide any part of the pre-clinical curriculum electronically, 26 (46%) programs stated they planned on doing so in the next two years, whereas 29/56 (52%) programs stated they had no plans to do so. One program did not answer the question. Using these numbers, there will be 56/86 (65%) respondents who will be delivering all or part of the pre-clinical curriculum via a computer based educational program instead of classroom or lab experience within two years.

36/86 (42%) programs stated that during the clinical phase of training, the program offers electronic coursework or exams whereas 50/86 (58%) programs do not offer this. Of those programs that do offer electronic coursework or exams, 27/36 (75%) state it can be done remotely via the internet while on rotations. 9/36 (25%) programs do not yet have remote access available, however, 6/9 (67%) programs do plan on providing remote access, 1/9 (11%) may do so and 2/9 (22%) have no plans to allow remote access. Of the 50 programs that do not currently provide electronic coursework or exams, 30 (60%) plan to do so within the next two years whereas 20 (40%) have no plans to do so. Using these numbers, there will be 56/86 (65%) respondents who will be utilizing electronic coursework or exams within the next two years.

The survey ended by looking into the future. Programs were asked if they foresee in the next 5 years, a remotely delivered curriculum for the pre-clinical experience where 90% or greater of the coursework is delivered via the Internet or other electronic means. 15/86 (17%) stated yes; 65/86 (76%) stated no; 5/86 (6%) stated maybe; and 1/86 (1%) did not answer the question. The programs were then asked if they could foresee a self-paced program entirely offered on the Internet for the pre-clinical portion and the clinical portion taught by local healthcare professionals complemented by electronic education. 7/86 (8%) programs stated yes; 76/86 (88%) stated no; and 3/86 (4%) stated maybe. Lastly, the programs were asked if they thought a PA trained electronically in his/her hometown by electronic means could receive an adequate education to practice as a PA. 13/86 (15%) programs stated yes; 70/86 (81%) stated no; and 3/86 (4%) stated maybe. This section received quite a large number of comments from the respondents. Among those who stated they could foresee a large portion of PA training offered online felt that it was already occurring and with success. The vast majority of respondents felt that while the technology is available and could replace on site training, they stated it should not replace the hands-on experience. The sentiments of many of these respondents were summarized well in a quote by Sir William Osler, "To study the phenomena of disease without books is to sail an uncharted sea, while to study books without patients is not to go to sea at all."<sup>2</sup>

### **Discussion**

Given the above data, technology will continue to increase in significance within physician assistant education in the United States. Almost 50% of existing PA programs state that they will require students to own a personal computer by the year 2003. The uses for computers in medical and PA education are endless. These include word processing, internet searches, problem-based learning, use of a spreadsheet, access to online journals and Medline for literature searches, communication by email between students and faculty and computer-assisted learning packages on CD-ROM that are used to develop anatomical and clinical skills.<sup>3</sup> Additional uses for computers within the practice setting include digital patient records, computerized prescriptions, telemedicine, and using email to notify patients of results and future appointments. It is then of paramount importance for all PAs to be able to access and use computers effectively in their practice. The best way to ensure PAs can use this technology is to include computer training or medical informatics, as part of PA school curriculum, particularly in light of emerging workforce concerns. Medical informatics "is the rapidly developing scientific field that deals with resources, devices and formalized methods for optimizing the storage, retrieval, and management of biomedical information for problem solving and decision making."<sup>4</sup>

Currently only 31% of PA schools require a formal medical informatics course during their curriculum. Less than twenty of the PA programs surveyed are planning on adding this course by the year 2003. Leaders in other healthcare fields have voiced the need to include technology and medical informatics in their education. This includes recommendations by the Association of American Medical Colleges (AAMC), the American College of Physicians (ACP), the American Association of Colleges of Nursing (AACN) and the National Advisory Council on Nursing Education and Practice (NAC-NEP).<sup>5</sup> The AAMC developed objectives that outline the basic skills in medical informatics needed by physicians in the 21<sup>st</sup> century.<sup>5</sup> The AAMC also assumes that medical students have mastered basic computer literacy skills before they go on to residency.<sup>5</sup> The ACP has created a Medical Informatics Subcommittee and has charged them “to develop ACP policies and programs that improve clinical care and medical education through the use of Information Systems and new technologies for managing and integrating medical information and knowledge.”<sup>6</sup> However, in spite of this emphasis on technology, in 1998, only 26 medical schools offered courses in literature searching, clinical decision making and the Internet.<sup>7</sup> Similarly, leaders in nursing education embrace the need for including courses in computer literacy and medical informatics.<sup>5</sup> The AACN believes that over the next decade all higher education in nursing must include the management of data and technology.<sup>8</sup> To this end, the AACN developed seven broad guidelines related to information and health care technologies.<sup>5</sup> In addition the NAC-NEP released a national agenda in 1997 that called for including core informatics courses within the nursing education.<sup>5</sup> Again, despite the recommendations from these groups, less than one third of nursing programs in the United States include medical informatics in their curricula.<sup>5</sup>

Another important application of this technology in PA education is using computers to augment classroom teaching and clinical skills training. Currently 35% of PA programs use computer based educational programs instead of classroom or lab experience for at least part of the pre-clinical training curriculum. In addition, another 30% will be adding some of these classes to their curriculum in the next two years. Electronic coursework or exams will be offered by 65% of PA programs within the next two years. A survey in 1997 showed that 89% of medical schools had some form of computer-assisted instruction.<sup>9</sup> This could include drill and practice programs, tutorials, models that help the student manipulate variables and observe the outcomes of physiological processes, and interactive simulations that present case-based scenarios.<sup>9</sup> Additionally, computers can be used for question and answer sessions in relation to lectures and courses, providing bulletin boards containing course information, and providing self-assessment material that is available any time of the day and can be completed at each students’ pace.<sup>10</sup> Computers are also being used to enhance clinical skills training in PA and medical education. Some PA programs use CD-ROMs to augment the learning of heart sounds and typical murmurs. Some medical schools use computer-assisted instructional video instead of traditional textbooks to teach students how to interpret skeletal radiographs.<sup>9</sup>

A final use for computers in PA education involves distance learning. Web-based programs like the Virtual Hospital at the University of Iowa and the Medical Education Information Center (MedIC) at the University of Texas, Houston provide educational programs to students located off-site and contain peer-reviewed specialty information, multimedia textbooks, and teaching files.<sup>9</sup> Programs like these bring educational resources to the students regardless of the student’s ability to geographically relocate for PA education.<sup>9</sup> The use of this type of innovative learning allows for immediate inclusion of new information at the time of discovery via electronic means rather than “hard copy”, thus, providing the most up-to-date data at the least expense to students.

The possibilities for computer-assisted instruction in PA education are seemingly endless and will be a necessary part of PA education in the very near future. As the knowledge base regarding clinical disease ever increases, it will be vital for all medical providers to be able to quickly and effectively utilize this technology. In addition, patient records will continue to trend toward computerization and many practices will go to computerized prescriptions. If PAs and PA students are not afforded the opportunity to access this information and to master this technology, their marketability, as well as their patients will suffer.

### **Applications to Physician Assistant Practice**

Everyone in the medical profession can directly feel the affects of the information age. The amount of medical information required by the average health care provider is expanding exponentially. It is no longer possible for health care providers to learn and remember all the information they will need to practice medicine. As a result, it is becoming more important for health care providers to focus on knowing where and how needed information is to be found rather than trying to know everything.<sup>11</sup> PAs will need to be able to adapt to this new environment if they hope to continue providing quality health care to their patients.

Computers are already extensively used in most medical practices. Common uses include billing, patient scheduling, and patient accounts. These items are not regularly part of the health care provider's responsibilities. Advances in the past couple of years involving computers in medical practice that have directly affected health care providers include telemedicine, electronic prescriptions, use of Personal Data Assistants (PDAs) for medical reference information and patient scheduling, textbooks and Continuing Medical Information on CD-ROMs, and the abundance of medical information available to patients and health care providers on the Internet. The availability of information on the Internet has led to more informed patients, which can lead to conflict between provider, and patient if the recommendations from the provider do not match what is on the Internet. PAs have to be prepared for interactions with more informed patients and must be able to search the Internet themselves to find out what kind of information is out there. The information on the Internet will continue to increase and the number of patients using this as a resource will also increase. PAs that are unable to use the Internet will be at a great disadvantage.

### **Recommendations**

SAAAPA encourages APAP to further study the use of Medical Informatics and encourage more PA Programs to both utilize and educate students and faculty.

SAAAPA encourages the AAPA to create a Medical Informatics Subcommittee, possibly affiliated with the Education Council and structured similar to the ACP's Medical Informatics Subcommittee.

## References

- 1 Meyers JD, chair. Medical education in the information age. In: Proceedings of the Symposium on Medical Informatics. Washington, DC: Association of American Medical Colleges, 1986.
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- 4 Shortliffe EH. What is medical informatics? Available at <http://camis.stanford.edu/whatisinformatics.htm>. Accessed March 20, 2001.
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## **Appendix A**

SAAAPA has developed the following charges for the Technology Taskforce:

- (1) Research current options available to PA students using the Internet, including financial responsibilities (if any);
- (2) Estimate the level of utilization of technology in PA education;
- (3) Define the minimum technological qualifications required by PAs for successful competition within the workforce; and
- (4) Compile the above into a position paper to be presented to the 2000 AOR for adoption.

## Appendix B

Dear Program Director,

The Student Academy of the American Academy of Physician Assistants (SAAAPA) is conducting an electronic survey concerning the utilization of information technology in PA education. Our survey has been reviewed and approved by the Research and Review Committee of the Association of PA Programs (APAP).

We ask for your cooperation in undertaking this project. Please fill out the attached survey and return to SAAAPA electronically. We plan on using the information gathered to draft a position paper on the subject of computer usage and technological advances in PA education. A copy of the final paper will be provided to the APAP general membership upon completion.

If you have any questions regarding this project, please do not hesitate to contact Jennifer Huey-Voorhees, SAAAPA Immediate Past President (Email:JennHV@aol.com).

We thank you in advance for your participation and appreciate your support. Please return completed surveys to Cyndi Brown at [cynthia@aapa.org](mailto:cynthia@aapa.org) by September 15, 2000.

Thank you,  
Student Academy Board of Directors

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The majority of the questions require simple yes/no answers. For multiple choice questions, please place an asterix (\*) in front of your response.

PA Program Name: (for administrative use only - will not be considered in the tabulation of results)

### Hardware

1. Does your program require a personal computer (Laptop, desktop) for every student?
2. If yes, is the cost included as part of the tuition?
3. If no, are you planning on requiring a PC in the next 2 years?

### Internet access

1. Is Internet access from home included for all students and faculty as part of the cost of education?
2. If no, is email provided for all students and faculty as part of the cost of tuition?
3. If no internet or email access is provided, are there plans to provide this in the next 2 years?

### Operating system

1. Has your program standardized on a single operating system?
  2. Windows 95
  - Windows 98 YES
  - Windows NT
  - Windows 2000
3. Macintosh
- Linux
- Other \_\_\_\_\_

### Software

1. Has your program standardized on a single office suite?
2. Microsoft Office?
3. Other suite such as Corel WordPerfect?

**Curriculum informatics**

1. Does your program require a formal medical informatics course during the training?
2. If yes, is it taught at least 90% in an electronic format?
3. If no, do you plan on requiring an informatics course in the next two years?

**Curriculum pre-clinical**

1. Has all or part of the pre-clinical curriculum been delivered via a computer based educational program instead of classroom or lab experience?
2. If yes, please list these courses in order of when implemented in an electronic form.
3. If no, do you have plans to convert lecture or lab experiences to electronic modes of delivery?

**Curriculum clinical**

1. During the clinical experience your program offers, do you offer electronic coursework or exams?
2. If yes, can these be done remotely via the internet while on clinical rotations?
3. If no, are there plans to offer electronic educational opportunities to be implemented in the next 2 years?

**The future**

1. Can your program foresee in the next 5 years, a remotely delivered curriculum for the pre-clinical experience where 90% or greater of the coursework is delivered via the Internet or other electronic means?
2. Can your program foresee a self-paced program entirely offered on the Internet for the pre-clinical portion and the clinical portion taught by local healthcare professionals complemented by electronic education?
3. Do you think a PA trained electronically in his/her hometown by electronic means could receive an adequate education to practice as a PA?

Definition of "electronic means of delivery" Video tape /DVD, closed caption TV, Internet coursework, Voice mail classes, FAX, telephone or email.

## Appendix C

**While respondents stated that at some programs all courses have some online component, those programs completely utilizing electronic media for courses include:**

Neuroanatomy  
Gross Anatomy  
Physiology  
History and Physical examination  
Pharmacology  
Medical Terminology  
Ethics  
Research Methodology  
Pathology  
Evidence Based Medicine/Clinical Skills  
Introduction to the Health Professions  
Cultural Diversity  
Health Promotion and Disease Prevention

During the clinical rotations electronic media are utilized for various purposes including:

Exams  
Course Evaluations  
Study Guides  
Handouts