

PA Clinical Doctorate Summit Final Report and Summary

April 15, 2009

Purpose

An independent body comprising nearly 50 individuals from within and outside the physician assistant (PA) profession and supported by resources from the Physician Assistant Education Association (PAEA) and the American Academy of Physician Assistants (AAPA) convened at a summit in March 2009 to address this specific goal:

To develop recommendations to the profession on whether the clinical doctorate is appropriate as an entry-level degree, as a postgraduate degree, or not at all.

The summit participants proceeded from a set of core values for the PA profession, which were: the overarching importance of patient care; diversity in all aspects of PA education and practice; and the historic, valued, and effective physician-PA team relationship.

Recommendations

From that basis, four final recommendations to the PA profession emerged. These are:

1. The PA profession opposes the entry-level doctorate for physician assistants.
2. The PA profession endorses the master's degree as the entry-level and terminal degree for the profession. As of 2012 the degree conferred upon completion of a PA program will be a singular degree entitled the Master of Physician Assistant Practice (MPAP).
3. The PA profession supports colleges and universities offering postgraduate, non-profession-specific clinical doctorates (e.g., doctorate of medical science, doctorate of health science, or other non-PA-specific clinical doctorates) as options available to PAs.
4. The PA profession should explore the development of a model for advanced standing for PAs who desire to become physicians (sometimes called a "bridge program").

Origins of the Summit

At the October 2007 PAEA Annual Education Forum, the membership passed a motion asking the PAEA Board of Directors to establish a mechanism to consider the clinical doctorate issue and its implications for the PA profession. Similarly, at its May 2008 meeting in San Antonio, the AAPA Board of Directors discussed the clinical doctorate issue and directed the AAPA Education Council to create an issue brief with recommendations. The Education Council's primary recommendation was that AAPA and PAEA should work together with a broad stakeholder group to investigate the clinical doctorate.

In September 2008 PAEA and AAPA agreed to partner to investigate the clinical doctorate. The purpose of this partnership was to jointly consider the pros and cons of a clinical doctorate for the PA profession in a timely, inclusive, transparent, and evidence-based process, culminating in a summit to be held in March 2009. To facilitate the summit PAEA retained the consulting firm InnovationLabs (IL), which has broad experience and expertise in helping both for-profit and nonprofit organizations solve problems and reach decisions through its collaborative design process. IL's clients include the American Medical Association, the Federation of State Medical Boards, NASA, and the U.S. Department of Energy.

Sponsor Group and Planning Process

As a first step in this collaborative process, a sponsor group was created to oversee the planning, research, and educational processes that would shape the summit and lead to the final recommendations. This was an independent group, not directly affiliated with either organization, which was charged to cast as wide a net as possible and create a broad-based group of participants with a wide variety of perspectives. Members of the sponsor group brought a wealth of knowledge and experience to the process. Sponsor group members were:

- Matt Dane Baker, PA-C, DHSc
- Dawn Morton-Rias, EdD, PA-C
- Donna Sewell, MS, PA-C
- Patricia Guerra, PA-C, MPAS
- Timi Agar Barwick
- Ayeshia Ellington Pompey
- Bob McNellis, MPH, PA
- Cheryl Holmes

PERSPECTIVES AND PREPARATION

One of the sponsor group's first tasks was to identify important perspectives to be heard in the doctorate dialogue (See Appendix 1). Based on this list of perspectives, the sponsor group identified individuals with the knowledge and unique experience to represent those perspectives at the summit. The sponsor group also designed a methodology to govern a literature review of other health-related professions that have moved or considered moving to a clinical doctorate (See Appendix 2). A research assistant was hired by AAPA to perform the literature search, develop a list of references, and summarize the findings from other professions. More than 100 articles were researched and summarized on the professions of physical therapy, nursing, occupational therapy, and social work. Literature on the PA profession was also reviewed.

Articles identified through the literature search were made publicly available on PAEA's Web site. In addition, sections were created on both the PAEA and the AAPA Web sites to inform constituents and the public about issues surrounding the consideration of the clinical doctorate by the profession. A comments section was created on PAEA's Web site, which allowed individuals to voice their opinions on the clinical doctorate issue. This page elicited approximately 1,700 hits in the three months leading up to the summit.

In January 2009, the sponsor group developed a model representing the career of a PA, called the PA Continuum of Competence (See Appendix 3). The model mapped out the stages of the profession beginning with the pre-applicant's first contact with the PA profession and ending with the PA's retirement. Building this visual model pushed the sponsor group members to consider the range of stakeholders involved as they developed the participant list for the summit, reviewed the literature search, developed the survey, and began to identify key questions for the summit process. Stakeholders they considered included applicants, students, PA programs, practicing PAs, physicians, accrediting bodies, and regulatory bodies.

In February, the group launched an online survey to assess the opinions of PAs, PA educators, and PA students on the PA-profession-specific clinical doctorate and the concept of the PA-to-MD/DO bridge program. The 22-question survey instrument was sent via e-mail to over 30,000 AAPA fellow and student members and to PAEA's faculty members; it was also accessible via the AAPA and PAEA Web sites. More than 5,200 respondents completed the survey between its launch on February 23 and its closure on March 31. The results of the survey are available online through either the AAPA or the PAEA Web sites.

In preparation for the summit, participants were asked to review the results of the on-line clinical doctorate survey; read interviews with a physical therapist, a medical sociologist, and graduates of the first PA doctorate program; and read two articles that provided an overview of the PA profession and education. Several other resources were made available on Innovation Labs' pre-event Web site.

Summit Activities

The 45 summit participants who gathered in Atlanta, Georgia, March 25-27, represented a diverse group of practicing PAs, PA educators, PA students, national organization staff, physicians from allopathic and osteopathic medicine, workforce experts, and representatives of physical therapy, nursing, and other professions (See Appendix 4).

During the two days of the summit, participants engaged in a wide variety of activities designed to help them examine the issues from many possible angles. These included scenario planning, model building, and consideration of the implications of different models for PAs at various places along the career continuum.

SCENARIO PLANNING AND FORCED FIT

During a scenario planning exercise, participants were divided into teams to consider how different values of 16 important and uncertain variables — such as health care costs, access to care, cost of PA education, and primary care vs. specialty focus — could affect the profession. Using these variables, teams developed different scenarios that the profession would have to respond to. Participants agreed that such issues as workforce demand, information technology, electronic health records, diversity, teamwork, concentrations of PAs in primary care or specialty practice, and access to care will have an impact on the PA profession.

Keeping these scenarios in mind, participants looked at how other professions have developed clinical doctorates. They were asked to “force fit” a PA clinical doctorate into each of the other professional models to see how it might apply to the PA profession and to discern advantages and disadvantages of each. Several professional models were examined, including physical therapy, occupational therapy, advanced practice nursing, and social work, as well as the Army’s postgraduate clinical doctorate and the concept of the PA-to-MD/DO bridge program.

Teams also reviewed the Continuum of Competence (see Appendix 3), a framework developed to outline the competencies developed and maintained throughout the career of a PA, to explore how a clinical doctorate would affect PAs and other stakeholders during each stage of a PA’s career. Major themes of this discussion were:

- Would new graduates with clinical doctorates have an advantage over mid-career PAs?
- Would PAs with doctorates get increased pay?
- What impact would PAs with doctorates have on the profession’s relationship with physicians and organized medicine?
- Would PAs without doctorates be disadvantaged in any way if the number of PAs with doctorates increased?
- Can PAs without doctorates be assured that they would be “grandfathered in” if legislation regarding PA practice were to change?
- The cost of PA education may increase.
- Entry-level doctorate education may decrease diversity of the profession.
- PA faculty may be required to have doctorate degrees.
- There is a need to train PAs for emerging health care needs, and physicians should be involved in the conversation about PA education.
- More research should be conducted and disseminated throughout the profession.

Developing the Recommendations

After several rounds of work and discussion, participants were given the opportunity to list their preliminary recommendations. These included options that had limited support and ultimately failed to achieve broader consensus. These recommendations were clustered into the following:

- **No Change:** The PA profession would not recommend the clinical doctorate as either an entry-level or postgraduate degree. Students have a variety of entry points into the profession.
- **Entry-Level Master’s Degree:** The master’s degree would be the entry-level degree for the PA profession.
- **Optional Postgraduate Clinical Doctorate:** PAs would have the choice to pursue postgraduate clinical training and obtain a doctorate degree at the completion of their training. This would not be mandatory.
- **Clinical Doctorate as the Entry-Level Degree:** The clinical doctorate would be the entry-level degree for the profession.
- **MD/DO Bridge:** PAs would have the option to go to medical school to become physicians, through a curriculum that acknowledges their existing fund of knowledge.

- **Stem Cell Model:** PA and medical students would start on the same track, and “get off” at different points depending on whether they wanted to become PAs or physicians, generalists or specialists.

Participants then assigned themselves to small groups to develop draft language for each of the potential recommendations, develop a justification for it, and develop an action plan to implement the recommendation. Discussion of these activities by the whole group yielded the following major themes:

- The master’s degree should be the entry-level degree, while multiple entry points into the profession should be maintained.
- The profession should state that the master’s degree is the official entry-level degree.
- All programs should move to a common master’s degree by 2020.
- Moving to an entry-level doctorate would increase the length and cost of PA programs.
- The goal of PA programs is to educate PAs so they can enter the workforce within a short period of time.
- It is essential to involve physicians in a conversation affirming the role of PAs as important members of the physician-led health care team.
- More research should be conducted on the impact of the move to the master’s degree on the profession’s diversity.
- There is a recognized need for increased training, especially in some specialty areas.
- There is interest among some PAs to become physicians. The profession should encourage medical schools to acknowledge the unique experience of PAs who become medical students.

Following this process, the majority of the group supported three of these recommendations:

1. AAPA and PAEA should oppose the entry-level clinical doctorate for PAs.
2. The master’s degree should be promoted as the entry-level degree for PAs.
3. The PA profession should explore a PA-to-MD/DO bridge program.

THE POSTGRADUATE CLINICAL DOCTORATE

However, there was not immediate consensus on the role of the postgraduate clinical doctorate in the PA profession. Three options relating to the issue were distilled from the draft recommendations. These were voted on by the summit participants, including PAs and physicians but excluding (by their choice) representatives from other professions (e.g., nursing and physical therapy). The three options were:

Option 1: We endorse the medical model of postgraduate clinical education and training for PAs. Therefore we conclude that it is unnecessary for the PA profession to adopt the clinical doctorate.

Option 2: We recommend full professional support for advanced education to enhance the knowledge and clinical skills of PAs, which includes the option of earning a postgraduate, PA-specific clinical doctoral degree.

Option 3: We recommend that the PA profession support the option for colleges and universities to offer postgraduate non-profession-specific professional doctorates (such as doctor of medical science or doctor of health science) as part of a group of options available to PAs for career development. This could be a “clinical doctorate” but not PA specific.

After two rounds of voting, Option 3 was agreed upon by the majority of the participants and was added to the final set of recommendations. The final four recommendations were then refined and action plans were finalized.

In addition to the four major recommendations, the summit participants recommended that:

- Current, multiple pathways be maintained for entry into PA programs to promote a diverse student body.
- The master’s degree curriculum should maintain a generalist focus.
- In support of the master’s degree as the terminal degree of the profession, there should not be a PA-specific clinical doctorate.

Adopted Recommendations, Justifications, and Action Plans

Recommendation 1. The PA profession opposes the entry-level doctorate for physician assistants.

Justification

- The length and cost of the current educational model has resulted in a responsive and accessible PA workforce. This educational model has adapted over 40 years to produce PAs who provide high quality, cost-effective, patient-centered care.
- Both physicians and PAs practice in the domain of medicine therefore the entry-level doctorate for the practice of medicine is the MD/DO.

Action Plan

- Communicate recommendation to AAPA/PAEA members.
- AAPA and PAEA adopt recommendation as policy.
- Develop a dissemination plan to include state, local and national stakeholders.
- Enlist the support of organized medicine to endorse policy and advocate opposition to PA entry-level doctorate.
 - AAPA to contact physician groups (i.e., AMA, AAFP, etc.)
 - Deploy PA program medical directors to support the recommendation.
 - PA program directors at academic health centers should enlist support of their deans.
 - PAEA should contact AAMC.
- Meet with leaders of physician groups to ask them to stand with PA profession against any incursions to PA practice as a result of this policy.
- Re-engage MD/DO community to work with PAs to promote access to cost-effective care.

Recommendation 2. The PA profession endorses the master’s degree as the entry-level and terminal degree for the profession. As of 2012 the degree conferred upon completion of a PA program will be a singular degree entitled the Master of Physician Assistant Practice (MPAP).

Justification

A single, uniform degree:

- Standardizes the product of PA education and lessens professional confusion.
- Facilitates “branding” of the profession.
- Clarifies professional identity through inclusion of PA in the title.
- Provides clarity to all stakeholders, including:
 - The four national PA organizations
 - Secondary education systems
 - Accrediting bodies
 - Deans and administrators
 - Hospitals and credentialing bodies
 - Legislators and regulatory bodies
 - Patients

The master’s degree as the entry-level and terminal degree:

- Supports advanced degrees in other health related fields and specialty practice
- Retains the flexibility of the profession
- Enables later specialization beyond entry-level education
- Acknowledges graduate level of PA education
- Acknowledges that most PA programs are at or migrating to master’s, lessening the impact of a profession-wide degree transition.
- Assists in promotion and tenure process.
- Avoids potential conflict over “doctor” title.

The year 2012 allows adequate time for transition to the new degree for all PA programs.

Action Plan

- National PA organizations should support implementation at the state and local level (e.g., AAPA — legislative, regulatory; ARC-PA — through the Standards).
- National organizations, particularly PAEA, should support PA programs converting to a master’s degree.
- PAEA and AAPA should develop a public awareness program to promote the “brand” of the PA profession. Audiences would include state organizations, all PAs, PA organizations, sponsoring physician groups, other health care professions, state licensing bodies, educational institutions.
- Engage in conversation with the education community to help make the change and get buy-in.
- PAEA should develop an action plan, within its strategic plan, to address the need to maintain and enhance diversity in the profession.

- AAPA should market the “PA brand” to AMA, AOA, AAFP, ACS, and others, and PAEA should market to medical education groups, such as AAMC and AACOM.
- The profession should support “grandfathering” of current PAs to protect them against future regulatory or legislative changes.
- AAPA should anticipate and address licensure, credentialing, and reimbursement issues.
- PAEA should seek financial support/grant/scholarship funding for minority students.
- PAEA should develop an educational bridge program (bachelor’s to master’s) to support diversity.
- AAPA and other organizations to continue to develop advanced education/skill opportunities for the area of specialty practice and nonclinical areas (e.g., administration, education, public health, and the health care industry).

Recommendation 3. The PA profession supports colleges and universities offering postgraduate, non-profession-specific doctorates (e.g., doctorate of medical science, doctorate of health science, or other clinical non-PA-specific clinical doctorates) as options available to PAs.

Justification

- The PA profession supports lifelong learning and the individual PA should be afforded a wide range of opportunities (both formal and informal) to advance his or her knowledge and skills.
- Opportunities to acquire additional knowledge and skills should be consistent with the delegated autonomy afforded to PAs through their relationships with supervising physicians.
- The PA profession supports clinical doctorates that are not PA-profession-specific.
- Such doctorates maintain clarity of roles in the unique PA/physician team for both patients and the general public.

Action Plan

- Develop a plan to communicate policy to PAs and other stakeholders to encourage buy-in.
- Track and make available through association Web sites options for continued learning to include non-PA-specific clinical doctorates.
- Develop advocacy plans at the national PA organization level to oppose a PA-specific clinical doctorate.

Recommendation 4. The PA profession should explore the development of a model for advanced standing for PAs who desire to become physicians (sometimes called a “PA-to-MD/DO bridge program”).

Justification

- According to AAPA census data, approximately 4% of PAs go on to medical school, indicating some level of demand.
- The medical model is common to both professions.
- The current model (which requires PAs to complete the entire four-year curriculum) leads to unnecessary duplication of didactic curriculum.

- PAs repeating some of their education at medical school is a waste of state funding resources.
- The current model requires a significant amount of time away from clinical practice (especially important at a time of physician shortages).
- The length of time spent in PA education is increasing.

This type of program also

- Has the potential to increase the number of students entering medical school.
- Provides the doctorate that some in the profession seek.
- Allows transition into a model that already exists vs. creating a new model
- Represents an interest expressed by PAs.
- Provides medical schools with a stream of highly skilled and more mature students.

Action Plan

- Create a task force including representatives from PAEA, medical education and accreditation, practicing PAs, AAPA, and later medical associations to:
 - Explore the “cultural anthropology” of PAs going to medical school — collect qualitative and demographic data on those who have done so.
 - Determine the similarities and differences between PA and medical schools.
 - Design a model.
 - Link with medical school to create pilot program.
 - Conduct focus groups to determine the impact on the PA profession.
- Promote the bridge program through:
 - Engaging physician groups and the medical education community at the beginning of exploration of the idea.
 - AAPA publications and Web site.
 - PAEA newsletter and Web site.
 - Publication of scholarly and editorial article in *JPAE* and *JAAPA*.

Future Research Needs

Participants also spent some time considering the future research needs for the profession on the issue of the clinical doctorate. Two main areas were identified:

TERMINAL DEGREE

A plan to study the terminal degree issue was developed. A working definition of terminal degree was proposed as “the highest degree obtainable in a field of study.” The first step in the plan would be to define what “terminal degree” means to various stakeholders including PAs, PA programs, universities, employers, government affairs, NCCPA, and associations of graduate programs. The second step would be qualitative data collection through focus groups conducted among PAs, universities, employers, and associations of graduate programs. The third step would be quantitative data collection (informed by the qualitative work) including surveys of nationally representative samples of stakeholders. Finally, recommendations for the terminal degree would be proposed. The proposed timeline from start of focus groups to development of recommendations would be 15-18 months.

CLINICAL DOCTORATE

Suggestions for further research on the PA-specific clinical doctorate included:

- Assemble a group of PAs, led by educators, to develop long-term and short-term research agendas on advanced education for PAs.
- Canvas the literature for models and strategies to promote continued and advanced education among clinicians.
- Survey academic institutions and canvas appropriate agencies regarding employment implications relative to clinical doctorates for PAs.
- Develop a model for clinical doctorates that is consistent with the understanding that the master's is the terminal degree for PA practice (i.e., a doctorate model focused on advanced clinical skill development beyond core competencies).
- Explore models of clinical doctorate education including content, instructional design, terminal objectives, duration, credit hours, faculty requirements, and degrees awarded.
- Obtain survey data from:
 - Employers – on PA skills taught, tested, and needed currently and in the future
 - PA programs – on curricula
 - NCCPA and AAPA – on what PAs do
 - PA clinicians – on their (knowledge and skill) gaps
 - Others – including patients and health care industry representatives

Potential research questions include:

- What knowledge and skill gaps among PA clinicians might be addressed by postgraduate doctoral preparation?
- How is doctoral preparation among PAs perceived by PAs, physicians, employers and others?
- What are the benefits and complications of graduate education leading to the clinical doctorate for PAs, employers, reimbursement, and physicians?
- What are the implications for PAs, employers, and physician supervisors?

Conclusion and Next Steps

Following a comprehensive, independent process, the participants at the PA Clinical Doctorate Summit made four recommendations to the PA profession. In addition, there was consensus that opportunities for research identified in this report be a priority for these organizations, including monitoring the market demand for increased clinical skills for PAs. The four recommendations will be formally considered by PAEA and AAPA, and acted upon within their existing governance processes. Any resulting policies will be disseminated to appropriate stakeholders.

Appendix 1

PA Clinical Doctorate Summit

List of invited perspectives

One or more representatives deemed able to represent each of the following perspectives was invited to the PA Clinical Doctorate Summit in Atlanta, March 25-27.

- Accreditation
- Admissions
- Area Health Education Center (AHEC)
- Army–Baylor PA clinical doctorate
- Certification
- Community college PA program
- Deans/educational administration
- Education council/general
- Health care workforce research
- Health economics
- Health Resources and Services Administration (HRSA)
- Interprofessional practice models
- Legal/legislative
- Medical sociology
- Other health professions (PT, OT, social work)
- PA employers
- PA student
- Patient
- Physician
- Practicing PA
- Professional organizations
- Workforce diversity

Appendix 2

PAEA & AAPA Clinical Doctorate Summit Literature Search Methodology Statement

November 2008

A thorough and organized literature search will be undertaken by the Summit Sponsor Group to:

- Better define the issue
- Delineate the historical perspective on the issue
- Assist with the formation of recommendations
- Gain insight into lessons learned in other professions

This process will include examining the literature from several other health professions. This will include some that have decided to develop a profession-specific clinical doctorate, others that have decided not to go in this direction, and others who have a close relationship with the PA profession (i.e., physicians). The search will also examine governmental and lay sources to try to anticipate some possible effects and consequences that the development of a clinical doctorate in the PA profession would have.

Professions to Be Evaluated:

1. Audiology (master's or doctorate [AuD]; all doctorate by 2012)
2. Advanced Practice Nursing:
Nurse Practitioners (master's, post-master's certificate, doctorate [DNP])
Nurse Midwives (CNM – bachelor's or master's)
Nurse Anesthetists (CRNA – master's)
Clinical Nurse Specialists
3. Occupational Therapy (certificate, master's, doctorate)
4. Pharmacy (PharmD and PharmD transition)
5. Physician Assistant (certificate, associate, bachelor's, master's, doctorate)
6. Physical Therapy (bachelor's to master's, direct entry master's [MPT], direct entry doctorate [DPT], transitional DPT)
7. Public Health (BSPH, MPH, MSPH, DrPH, PhD)
8. Social Work (BSW, MSW, DSW or PhD)
9. Dietetics (probably not nutritionists; bachelor's and BA/MA program)
10. Clinical laboratory science (bachelor of science, but considering doctorate)

The Sponsor Group may also evaluate the literature on psychology, although this is a complex field that includes clinical psychology, counseling, and school psychology, and has a variety of degrees (MEd, MS, EdD, PhD, and PsyD).

Research Questions:

1. Has the profession examined the issue of a field-specific clinical doctorate?
2. What issues in the profession prompted the discussion about the clinical doctorate?
3. What was the decision regarding the clinical doctorate?
4. Is the degree entry-level, postprofessional, or both?
5. If entry level, was a bridge or transition degree created?
6. How was the decision reached regarding the clinical doctorate in the profession? What was the methodology?
7. What were the perceived pros and cons regarding the clinical doctorate in the profession?
8. Who were the major advocates and opposition groups to the clinical doctorate?
9. What are the perceptions about the clinical doctorate among people in the profession?
10. If a clinical doctorate was developed, what was the structure (e.g., number of additional credits, additional content and focus)?
11. What additional skill sets does the clinical doctorate give graduates proficiency in?
12. If a clinical doctorate was created, has outcome research been done to examine the effects the degree has had on the profession (admissions, access to education, student demographics, relations with other professions, cost of education, salaries, clinical scope of practice, legislation, credentials process, third party reimbursement, patient acceptance, etc.)? If yes, what are the results?
13. What role does the degree play in determining clinical practice ability? Is there a certification that takes precedence over degree? Is there a minimum degree requirement for certification?
14. Are there lessons learned and best practices that can be gleaned from clinical doctorate development in other health professions?
15. What has been medicine's reaction to increasing scope and responsibilities of other professions? How will medicine react to a clinical doctorate for PAs?

The research questions may have to be refined. Given that the transition to the clinical doctorate in many health professions is a relatively new phenomenon, there may be a dearth of hard data from outcomes research.

Search Criteria:

To answer the above questions adequately we will need to cast a wide net and use a variety of literature sources and research methods. Restricting our effort to well-designed quantitative research with adequate sample size appearing in peer-reviewed journals may have a very limited yield. A process used by the social sciences and history may be more suitable for answering these questions than a methodology resembling a systematic evidence-based medicine review. The process may need to involve the review of research articles (quantitative and qualitative), review articles, editorials, peer-reviewed journals, non-peer-reviewed publications, books, newspapers, professional newsletters, thesis/dissertations, posters, abstracts, meeting minutes, memorandum, white papers, task force reports, organization position statements, Web sites of colleges and professional organizations, government statistics, professional organization archives, accreditation standards and professional organization resolutions. Conducting interviews with leaders in the professions who were involved in the decision-making process may also yield valuable information.

Inclusion Criteria:

1. Reliable sources:
 - a. Professional journals
 - b. Information from professional organizations representing the disciplines in question (journals, newsletters, Web sites, archives)
 - c. Information from government sources (statistics and policy papers)
 - d. Information from accredited academic institutions (Web sites and catalogues outlining curriculum)
 - e. Articles from reputable newspapers and magazines (e.g., *New York Times*, *Wall Street Journal*)
 - f. Books from reputable publishers and authors with the appropriate credentials and expertise
2. Currency: Nothing older than 1985. Note: Researchers may have to go back to the late-1980s to obtain an accurate historical perspective.
3. Language: English
4. Country: United States

Search Strategy and Methodology:

- a. Databases: MEDLINE, EBSCO Host, OVID, CINHL, ERIC
- b. Search engines: Google & Google Scholar
- c. Specific professional publications: Newsletters and journals
- d. Professional organization Web site search engines
- e. Lay press search engines: Chronicle of Higher Education, Wall Street Journal, New York Times
- f. Government (e.g., CDC, Bureau of Labor Statistics) Web site search engines
- g. The reference list of task force papers and review articles (backward search strategy)
- h. Library search for books
- i. Ask professional leaders for recommendations on key pieces of literature related to the subject in their field
- j. Search terms and keywords:
 - i. Clinical doctorate
 - ii. Clinical doctorate AND name of profession
 - iii. Doctorate AND name of profession
- k. Start with abstract review, then move on to the review of the full text
- l. Track the number of hits on searches, the numbers of abstracts and the number of full articles reviewed
- m. Consider consultation with a professional librarian

**PAEA & AAPA Clinical Doctorate Summit
Literature Search Critical Appraisal Form**

Title: _____

Authors: _____

Source/Journal: _____

Peer-reviewed: YES NO

Date, Volume, & Number: _____

1. Was the source of the information reliable and reputable?

YES NO **Comment:**

2. Was the source of the information current (1985 or after)?

YES NO **Comment:**

3. What is the type of article:

- Research article**
- Review article**
- Editorial or op-ed**
- Book**
- Newspaper**
- Newsletter**
- Web site**
- Thesis/dissertation**
- Abstract**
- Presentation or meeting proceedings**
- Poster**
- Meeting minutes**
- Resolution**
- Task force report, consensus panel, white paper**
- Archives**
- Memorandum**
- Interview**
- Other:** _____

4. What was the methodology (if research)? _____

5. Was the methodology (design, sampling, data collection, statistical analysis) sound and appropriate?

YES NO **Comment:**

5. Was there any bias?

YES NO **Comment:**

6. List and describe the key findings:

7. Was the information relevant and helpful in answering the questions?

YES NO **Comment:**

8. What was the quality of the information?

Excellent Good Adequate Poor
Comment:

9. Does this article provide details on additional sources of information?

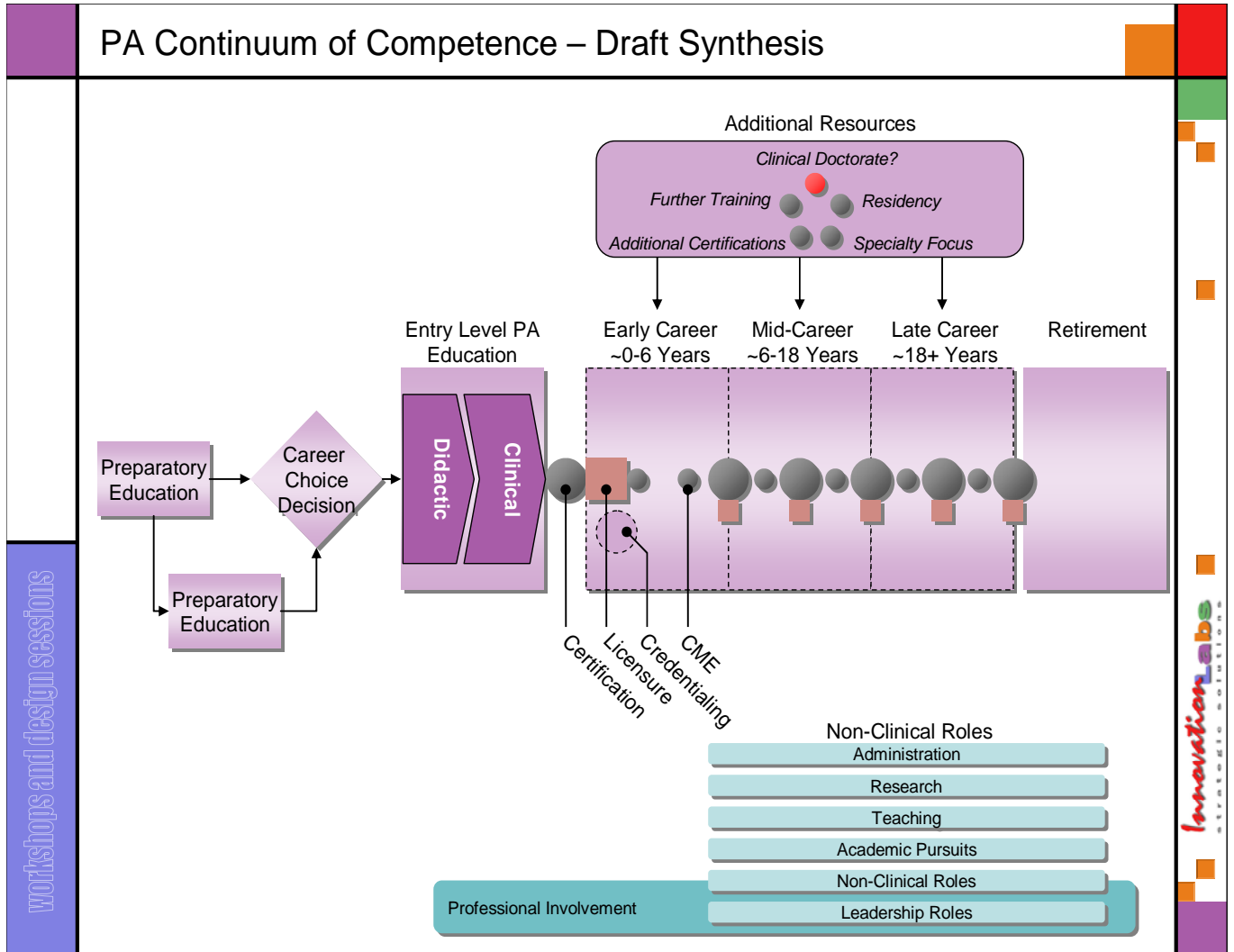
YES NO **If yes, list:**

Reviewer: _____

Date: _____

Appendix 3

PA Continuum of Competence



Appendix 4

PA Clinical Doctorate Summit Participants March 25-27, 2009 Atlanta, GA

Lisa Alexander, EdD, MPH, PA
George Washington University Medical Center

Matt Dane Baker, PA-C, DHSc
Philadelphia University PA Program

Timi Agar Barwick
Physician Assistant Education Association

Geraldine "Polly" Bednash, RN, PhD, FAAN
American Association of Colleges of Nursing

James Brand, MD
University of Oklahoma Health Sciences Center PA Program

Ann Davis, PA-C
American Academy of Physician Assistants

Michael Doll, PA-C
Geisinger Health System

Pamela Donohue, ScD, PA-C
Johns Hopkins School of Medicine

Major Leonard Gruppo, MPAS, PA-C
U.S. Army, Postgraduate PA Education

Patricia Guerra, PA-C, MPAS
Diabetes & Lipid Clinic, VA North Texas

Trisha Harris-Odimbe, MS, PA-C
Baylor College of Medicine PA Program

Cheryl Holmes
American Academy of Physician Assistants

John Houchins, MD
University of Utah PA Program

Dick Knapp, PhD
Association of American Medical Colleges

William "Bill" Kohlhepp, DHSc, PA-C
Quinnipiac University PA Program

Steven Lane, MA
Physician Assistant Education Association

Bill Leinweber
American Academy of Physician Assistants

Cynthia B. Lord, MHS, PA-C
Quinnipiac University PA Program

Dan McNeill, PhD, PA-C
University of Oklahoma Health Sciences Center PA Program

Bob McNellis, MPH, PA
American Academy of Physician Assistants

Dawn Morton-Rias, EdD, PA-C
SUNY Downstate Medical Center

Felix Nwamaghinna, PA-C
SUNY Downstate Medical Center PA Program

Kathleen O'Connell, PA-C
Parkland Health and Hospital System

Patti Pagels, MPAS, PA-C
University of Texas Southwestern Medical Center

Major Craig V. Paige, MPAS, PA-C
U.S. Army Orthopaedic Residency Programs

Rebecca Pinto, PA-C
Ravenswood Family Health Center

Maura Polansky, MS, PA-C
M.D. Anderson Cancer Center

Harry Pomeranz, PA-C, MSPH
Mercy College PA Program

Ayeshia Ellington Pompey, MPA
Physician Assistant Education Association
aellington@paeonline.org

Alfrede Provilus, PA-C, CDE
SUNY Downstate PA Program

Ben Robinson, MPA
Board of Regents of the University System of
Georgia

Ted Ruback, MS, PA-C
Oregon Health & Science University

Fred Sadler, MD
Harden Urgent Care

Donna Sewell, MS, PA-C
Towson University-CCBC Essex PA Program

Dana Sayre Stanhope, EdD, PA-C
Emory University PA Program

Dee Schilling, PT, PhD
Western University

Doug Scott
American Academy of Physician Assistants

Susan Scott, PA-C
Physicians Emergency Care Associates, Inc

Freddi Segal-Gidan, PA, PhD
Keck School of Medicine, USC

Major Patrick Sherman, PA-C, MHS
U.S. Army Physician Assistant Surgical Residency
Program

Justine Strand, DrPH, PA-C
Duke University Medical Center

Dan Thibodeau, MHP, PA-C
Eastern Virginia Medical School PA Program

Brian A. Timm, RDMS
Student Academy of the American Academy of
Physician Assistants

Heather Trafton, MS, PA-C
Brigham and Women's Hospital (Boston)

Kristen Will, MHPE, PA-C
Mayo Clinic Arizona

Doug Wood, PhD, DO
A.T. Still University, School of Osteopathic
Medicine in Arizona