

## **Advancing Physician Assistant Education: Is a Graduate Degree the Answer?**

Steven C. Hall MPAS CCPA BN

The question of entry to practice degree requirements for professions has long been a controversial issue, and the Physician Assistant (PA) profession is no exception. In the past several years, many Canadian healthcare professions have increased entry-to-practice degree requirements. In the US, Physician Assistant programs will now require a graduate degree for entry to practice by 2020 or risk losing accreditation status. The Canadian civilian PA profession is relatively new, with the first licensed civilian PA beginning practice just 16 years ago. In the natural progression of a maturing profession, educational standards elevate in importance and degree requirements for entry-to-practice often become a pressing issue. Additionally, external factors and trends in both education and healthcare systems impact the PA profession, requiring the adaptation of PA training programs. Given the changes in PA education south of the border, as well as educational requirements required of comparable professions such as Nurse Practitioners (NP's), Canadian PA educational programs may soon be under pressure to adopt enhanced educational entry to practice standards.

### **HISTORY OF US PA EDUCATION**

In order to analyze educational trends and developments, it is necessary to historically review our beginnings as a profession. Developed in the United States in the 1960's due to a shortage of primary care physicians, the initial PA program was 2 years in length, and selected four Navy Hospital Corpsmen with extensive medical training (1). Given the close practice relationship with physicians, the need for an academic degree in early graduates was deemed less necessary. Graduates were awarded a certificate, associate degree, or sometimes a bachelor degree with PA programs emerging in a wide variety of health institutions, including universities, medical schools, four-year colleges, community colleges, technical and vocational schools, teaching hospitals, correctional systems, and federal health care systems (2). As a result of the diverse educational providers, clinical curriculum models were varied and utilized various approaches, with some programs recruiting those with significant experience in health care. Typically 2 years in duration, PA programs were generally shorter than medical programs and were structured for educational efficiency.

Traditionally, competency-based PA educational philosophy with proficiency in clinical skills was identified as necessary for competence in primary care/generalist practice and

would be the “gold standard” of PA educational preparation, rather than adherence to the institutional requirements of a specific academic degree (2). However, it soon became apparent that there was a general trend towards degree designation over time. The first PA educational program to grant an academic degree was Alderson Broaddus College in 1970 who awarded a four year Bachelor degree; the curriculum was a 4 year model with 2 years of general college work, followed by a 2 year professional phase (3). Shortly thereafter, consideration of the master’s degree being the required entry-to-practice requirement occurred for a variety of reasons, including many applicants already possessing bachelor’s degree’s prior to admittance, as well as belief that the academic standards required of the PA program went far above what would be considered a bachelor’s degree level. Other factors driving the movement to a master’s degree were financial aid (graduate financial aid was more readily available), educational changes in other health related professions, and the increase in undergraduate programs designed for pre-PA studies. Not long after, the first master’s degree for entry-to-practice was established in 1975 at the University of Colorado. Since that time, the ARC-PA established in 2005 that all new PA programs would require institutions granting a bachelor degree or higher, and as of 2020 a graduate degree is the new established standard for accreditation. There are presently 238 ARC-PA accredited programs in the US(4).

### **CANADIAN PA EDUCATION**

Typically, in order for the PA profession to establish itself in a country, a number of steps are necessary, and ideally occur in a logical stepwise manner: educational program development, an accreditation process for PA education, and role development in clinical training (5). Upon graduation, an adequate number of employers is required, as well as regulatory process (such as registration or licensure), certification, and financial compensation measures. Implementing all of these measures can take a considerable amount of time to accomplish, spanning several decades. Across the US, completion of all of these tasks required nearly 40 years; in Canada, regulatory process and financial compensation are still a work in progress in some provinces where PA’s have been introduced.

The Canadian PA profession roots stretch back to the 1960’s, when the Canadian Forces utilized physician extenders. Since then, PA education has expanded to a total of four programs which are approximately 2 years in duration and have oversight from the Physician Assistant Certification Council of Canada (PACCC), a council of the Canadian Association of Physician Assistants (CAPA) who also administer the national certification exam. Accreditation is conjoint through both CAPA and the Canadian Medical Association (CMA) for a 6 year period. As of February 2018, CMA will be divesting in providing accreditation services, and a search for an alternate organization is underway.

Of the four PA educational programs, three are located in Ontario and award a Bachelor Degree with McMaster University, the Consortium of PA Education (University of Toronto, Northern Ontario School of Medicine, and the Michener Institute of Education at UHN), and the Canadian Armed Forces program which grants a Bachelor of Science from Nebraska University. The University of Manitoba is the only masters degree program throughout Canada, and confers a Master of Physician Assistant Studies upon graduation. All 3 civilian programs follow a similar structure, including theoretical teaching in year 1, followed by clinical rotations in year 2.

The national standard of practice for PA's has been established and maintained by CAPA, who have adopted the CanMEDS-PA competency standards that are expected of all PA's to demonstrate for entry-to-practice generalist PA (6). Updated in 2015, and created with the support of the Royal College of Physicians and Surgeons of Canada (RCPSC) as well as the College of Family Physicians of Canada (CFPC), CanMEDS-PA competencies are organized in seven roles, including Medical Expert, Communicator, Collaborator, Leader, Health Advocate, Scholar and Professionals. Competencies are used by educational programs both as a guide for assessment as well as the national certification exam. The Canadian Physician Assistant Education Association supports PA education, as well as educational standards; to date, no practice statement regarding degree requirements for entry-to-practice has been proposed.

### **GRADUATE DEGREE**

In Canada, educational responsibility under the constitution is assigned to the province. In most provinces, the Ministry of Higher Education is responsible for policy development, financial oversight, as well as accountability within post-secondary educational institutions. Individual universities (outside of Alberta and British Columbia) have the duty to ensure quality assurance in their programs.

In the 2007 Ministerial Statement on Quality Assurance of Degree Education, a bachelor's degree is "designed to acquaint the student with the basic conceptual approaches and methodologies of the principle discipline", whereas a master's degree program "requires more specialized knowledge and intellectual autonomy than a bachelor's degree program" (7). In general, a baccalaureate degree is a minimal requirement for pursuing a graduate education, which is considered advanced as it builds on and develops a deeper knowledge and skills base than that acquired at the baccalaureate level. Other characteristics that are typical of a graduate education is the expectation that students contribute to the knowledge base within that profession, complete a research project, develop an enhanced ability to problem solve complex issues, and mastery of the subject matter.

## **FACTORS PROMOTING GRADUATE DEGREE FOR ENTRY TO PRACTICE**

Among the issues considered when setting academic standards are the need to appropriately match the degree to the academic work involved, the desire to be viewed on an equal footing with similar professions, standardizing training for entry into the workforce, and portability (2). Additionally, the desire to be acknowledged as the preferred practitioner, and to be seen as professionals when surrounded by specialized practitioners are further driving factors.

The explosion in new skills required, knowledge, and advancements in professional attitudes have mandated that educational programs adapt. Rapid changes in health system delivery have also led to the belief that the skills, knowledge and attributes required can only be gained through higher education programs, such as a graduate degree. In a relatively unestablished profession such as PA's in Canada, having a standardized degree at the entry-level would assist the general public in a better understanding of the PA educational requirements. Additionally, one argument used against regulation of PA's in Ontario by the Registered Nurses' Association of Ontario has been the perceived inconsistent education, quality, and length of Ontario civilian PA education (8); an argument that would likely disappear with an entry level graduate education.

Additionally, when new professions establish themselves within a country, new professional opportunities are presented over time. Faculty positions, positions in research, leadership, and managerial settings are among those created in addition to clinical positions with increased frequency as numbers in the PA profession increase. The educational system must be responsive to these shifts in order to meet the demand and expectations.

## **TRENDS AFFECTING HEALTH CARE EDUCATION**

With ongoing advances and discoveries, there is perhaps no field changing as rapidly as medicine. This has had several important implications for educational programs being required to monitor and be able to respond and adapt to new trends and forces not only within clinical medicine itself, but also within the health care system. In Canada, some of these trends include demographic changes (an aging population with increased life expectancy and an increase in chronic disease), advances in science and technology (such as genetic biomarkers, the explosion in information technology), and social and economic trends. Additionally, educational trends such as problem-based learning and evidence-based learning have been adopted as a movement away from traditional lecture based education. Medicine has also been challenged to improve quality and clinical outcomes, with new calls for more accountability in higher education (9). It is logical that any

significant adjustments in medical education would also have implications for PA education.

A desire for autonomy, and the economic trend in cost effectiveness have led for calls to “do more with less” and has led to an expansion of clinical roles, requiring the necessary educational changes to support these developments. For example, in 2014 The Pharmaceutical Act came into effect in Manitoba which allows Pharmacists limited prescribing abilities, the ability to order and interpret tests, as well as the administration of drugs. In the PA profession, the closest competitor is the Nurse Practitioner, which requires a graduate degree for entry-to-practice in Canada. In the US, the American Association of Colleges of Nursing has issued a position statement calling for advanced practice nurses to be educated at the doctoral level by 2015.

### **ARGUMENTS AGAINST GRADUATE DEGREES AS THE ENTRY TO PRACTICE REQUIREMENT**

Recently, entry to practice requirements have increased for several Canadian health professions, with nurses now requiring a bachelor degree, physiotherapy, occupational therapy, and speech language therapy all requiring a master's degree, and by 2020 Pharmacy schools across Canada will move to a doctorate degree (10).

The trend towards higher entry to practice degree requirements is not only confined to health professions. In Canada, from 2000-2010, full time master's and doctoral programs increased from 71,000 to 127,000; master's enrolment in full-time study had more than tripled from 1980 to 2010 with PhD enrolment increasing four a half-fold from 1980 to 2010 (7).

The increasing educational standards have resulted in calls of “credential creep” or “degree creep” gaining some traction, with proponents calling the increasing expectations for formal educational qualifications unnecessary. Concerns of increasing costs of higher education have been raised, rendering a graduate education unaffordable to some, and therefore inaccessible to low income and minorities. Other concerns are the resultant delay in graduating students that a graduate degree would entail, and that a graduate degree is more focused on achieving professional status as compared to clinical ability and reflecting market demand. While a consequence of higher education may be an increase in autonomy, the PA profession level of autonomy is largely determined by the supervising physician, with autonomy gained through experience and trust. Higher degrees often result in a higher salary, which may be difficult to achieve in times of budgetary constraint. Lastly, opponents have argued that a higher education does not lead to better qualified clinicians, with a doctorate not shown to enhance students' abilities (11).

**ADDING VALUE TO AN ADVANCED DEGREE**

Minimal studies have been performed questioning whether a graduate degree for entry-to-practice results in higher quality patient care, and quantifying this would be exceedingly difficult when considering the variations in Canadian PA practice between provinces due to regulation. Benefits of a graduate degree may be less tangible, such as the US Graduate Education Commission conclusion that PA's with advanced academic preparation have the potential "to make contributions to health care beyond their clinical abilities" (9).

Adopting a master's degree as the entry-to-practice standard would require individual programs to reevaluate a number of program aspects. Specifically, duration of program, prerequisites, curriculum, research contribution, and faculty credentials would all be considerations in shifting degree requirements. In the US, curriculum adjustments to meet master's requirements most often included additional research related courses, such as research methodology, statistics, and data analysis. There has also been some movement towards placing some previously included courses to the prerequisite category.

**CONCLUSION**

In the absence of a guiding consensus statement regarding entry-to-practice for Canadian PA education, individual programs are responsible for maintaining accreditation status through the CMA and determining degree requirements. As PA's struggle to establish the profession in Canada, high educational requirements and standards become more imperative, particularly given the current advanced educational requirements of comparable competing professions, such as NP's. With the rapid changes in health system delivery, challenges in PA regulation, trends towards pursuing graduate degrees in both Canada and the US, and the desire to be experts in our field, it is important that the degree conferred reflect the rigorous and advanced knowledge and skills that is required as a PA. While not presently the entry-to-practice standard, a graduate education for PA's appears the best suited to meet the demands of the profession.