OPINION ESSAY: WHY CANADA SHOULD EXPAND THE PA PROFESSION

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What role can physician assistants (PAs) play in the health care system in Canada? The role of a physician assistant was created to relieve physician shortage in the United States in the 1960s building on the skills of retired military medical personnel. The PA profession is at a different stage of development in countries of United States (US), Canada, Australia, England, Scotland, the Netherland, South Africa, and Taiwan (Hooker, Hogan, & Leeker, 2007). In the US, the PA profession flourished and had become an integral part of the American health care system (Cawley, 2012). PAs are regulated in all 50 states and have a broad scope of practice. Under the supervision of a physician, they can diagnose and treat a patient in a variety of specialties and can order and interpret diagnostic test results and prescribe medications; can first assist in surgery, and they can provide consultation and education to patients and families. Essentially PA's scope of practice "allow[s] him or her to perform clinical services that are delegated by the supervising physicians as long as the task is also within the scope of the physician's scope of practice, excluding major surgery" (Mittman, Cawley, & Fenn, 2002). In Canada, in contrast, PAs are only regulated in two provinces so far, and jobs and scope of practice are quite limited. In the face of increasing healthcare demand, Canada should continue to expand the PA profession. Hiring more PAs into the Canadian healthcare system will help reduce waiting time, alleviate physician shortage, and reduce healthcare expenditure.

Canada prides itself in providing universal healthcare. However, the system is far from perfect. Canadians face persistent physician shortage, long waiting time, and increase in healthcare cost. The issue of physician shortage is worst in the rural areas and primary care setting. According to Canada Collaborative Centre for Physician Resources (C3PR), more than 20%

of people live in rural Canada, but only less than 10% of the workforce of physicians work there (Jiang 2016). With the ageing population and the increased influx of immigrants and refugees, Canada will face a higher demand for healthcare providers. The problem is complicated by the ageing of existing physicians, greater stress on work-life balance in the younger generation, physicians leaving the primary care field for nonclinical jobs or higher salaried specialties (Salsburg & Grover, 2006; Hauer et al., 2008).

It's been predicted that Canada will face a shortage of about 40,000 adult primary care doctors by 2050 (Colwill, Cultice, & Kruse, 2008). Physician shortage is one of the causes for long wait time for healthcare services. A survey of physicians found that in 2010 patients waited for about 18.2 weeks to see a specialist after referral by their primary care provider (Skinner & Rovere, no date). The time Canadians are waiting for surgery is almost 96% longer than that in 1993 (Skinner & Rovere, no date). Wait time can also belong in the emergency department (ED) for low-acuity or low-complexity patient. Long wait can subsequently lead to decrease patient satisfaction, physical and emotional suffering, and increased noncompliance with medical advice (Gifford, Hyde, & Stoehr, 2011). ED crowding also leads to increased length of stay and decreased bed availability for more acute patients. Another big problem that Canada faces is the increased health care cost. Among the countries with universal health care system, Canada is the second most expensive (Clemens & Bacchus, 2014). Between 1997 and 2017, the health insurance cost for an average Canadian family increased by 173.6% as compared to an increase of 54.6% in food price, 93.4% in the shelter, and 96.6% in average income (Ren, Palacios, & Barua, 2017). Higher healthcare cost led the government to curtail physician supply and insurance coverage which only worsened access to healthcare, long waiting time, and quality of healthcare services. Higher healthcare expenditure also led to increasing the tax burden for the government and its citizens with a negative impact on the national economy.

Increasing the number of physicians would be an expensive way to solve the problem of physician shortage and long wait time. Expanding the PA profession would be an ideal solution to meet the increase in demand for healthcare providers. PAs are medically trained healthcare professionals capable of diagnosing and treating patients or assisting physicians in a variety of settings. In the ED, the large number of low-acuity patients is a significant contributor to long waiting time and ED crowding (Doan et al., 2013; Gifford et al., 2011). Majority of American ED PAs work

in the fast track area, an area designated for minor illnesses. The research found that hiring PAs to work in the fast-track areas has led to a decrease in length of stay and wait for time and an increase in patient satisfaction (Gifford et al., 2011). Having PAs in the ED will also free up physicians to look after patients with more acute or complex issues (Doan et al., 2013; Gifford et al., 2011). PAs can also work as the first assist in the operating room (OR), thereby increasing the number of surgeons available to reduce surgery waiting time. PAs can also alleviate the shortage of primary care physicians. Many PAs in the US work independently in rural clinics, work on-call hours, and cover offsite locations with physicians available only for consultation (Mittman et al., 2002). A Canadian study about the impact of integration of PAs in infectious disease consult service revealed a seven-hour decrease in wait time for consultation and 3.6 days decrease in length of stay in a large urban community hospital (Decloe, McCready, Downey, & Powis, 2015).

Many people doubt PAs qualifications or competence due to the shorter schooling as compared to physicians and lack of healthcare experience as compared to nurse practitioners (NP). However, my clinical experiences during PA school and conversation with physicians and patients convinced me that PAs are well respected in the healthcare setting. Many patients appreciate that PAs spent more time talking to them and provided more patient-centered care as compared to their own primary care physicians. Many doctors prefer PAs than NPs because PAs received medical model training which matches better with their own. Because there is no restriction on the type of undergraduate degrees PA students must have, they tend to bring a diversity of knowledge and experience to the classroom. Personal observation and discussion with fellow classmates also showed me that PAs with only 1 or 2 years of experience are fully capable of diagnosing and treating a patient in a safe and effective manner with minimal physician supervision. PAs with many years of experience are considered valuable members of the healthcare team and are even sometimes consulted by young physicians and inexperienced surgeons for advice. Gifford and colleagues (2011) also suggest that most ED doctors agree that PAs in the ED could potentially decrease malpractice risk by enhancing patient communication, reducing wait time, and improving patient satisfaction.

Due to the increased popularity of PAs and their expanding roles and responsibilities, many medical students and residents consider PAs and NPs as a professional threat (Larkin, Kantor & Zieiinski, 2001). They need to recognize that PAs have limitations and can only work in collaboration with a physician. They also need to understand that the primary driver for the increase in growth of the PA profession is cost containment and access to care. PAs are paid less salary than physicians but are as capable as physicians for treating low acuity and complexity patients in ED (Doan et al., 2013) and managing patients in the pre-, intra-, and postoperative environment (AASPA, 2011). Training a PA is also less expensive and can indirectly decrease government financial burden on a student loan. Training and hiring more PAs would be a more economically wise and practical solution to solve the national problem of physician shortages and long wait time. The tax money saved can be utilized elsewhere to address the social determinants of health, such as education, housing, access to healthy food, and transportation. Addressing these root determinants of health is the most sustainable strategy to create a healthier nation and maximize the benefit of universal health care.

In conclusion, increase in healthcare demand is placing more stress on the Canadian healthcare system, tax burden and thus national economy. Promoting the utilization of PAs can potentially help alleviate physician shortage, shorten wait time, and reduce national healthcare expenditure. PAs have proved themselves to be fully capable of providing safe and quality healthcare services to patients in a variety of clinical settings. Canada should continue to expand the PA profession to increase the accessibility, affordability, and quality of its healthcare system.

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