Nurse Practitioners – An Underutilized Resource

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ABSTRACT

The nurse practitioner (NP) is a relatively new care provider in the Canadian healthcare system. NPs are registered nurses (RNs) with extensive clinical experience and higher education to conduct advanced health assessments, make diagnoses, order and interpret lab tests, prescribe drugs, perform advanced interventions, monitor outcomes, and make referrals to other healthcare providers. Although the positive impact of NPs in improving patient access to timely and quality care has been widely demonstrated, NPs continue to be grossly underutilized in Canada. We provide our thoughts on how to expand the role of the NP in healthcare delivery.

KEYWORDS: *nurse, registered practitioner, underutilized, interdisciplinary*

INTRODUCTION

Although the Canadian healthcare system provides universal coverage and demonstrates excellence in patient outcomes, long wait-times continue to be a major problem. One strategy to address this issue was to train more nurse practitioners (NPs) with the introduction of the $8.9 million Canadian Nurse Practitioner Initiative in 2004.[1] NPs are registered nurses (RNs) with clinical experience and higher education who conduct advanced health assessments, order and interpret lab tests, make diagnoses, prescribe drugs, perform advanced interventions, monitor client outcomes, and make referrals to physicians and other healthcare providers.[2] As highly trained healthcare professionals, NPs have demonstrated improved access to timely and quality care, especially in remote communities and areas with physician shortages.[1, 3-6] In spite of this, NPs represented only 0.9% of Canadian nurses in 2010.[7] By reviewing current literature on the NP profession, this article will explore how NP collaboration with physicians can improve healthcare quality and accessibility, examine current barriers to expansion of NPs, and propose recommendations to improve NP integration in the healthcare system.

COLLABORATION BETWEEN NPS AND PHYSICIANS

While it is true that both NPs and physicians are qualified to diagnose illnesses and prescribe medications, it is a misconception to assume that these are antagonizing roles. When NPs and physicians are viewed as collaborators instead of competitors, the benefits of this cooperation become clear. With their extensive training and experience as nurses, NPs have exceptional patient communication skills and are able to participate in both the care and cure of the patient.[8] By bringing a diverse range of experiences, including comprehensive patient education and chronic care management, NPs promote greater flexibility and adaptability in team management.[9] Indeed, in comparison to physicians, NPs have demonstrated improved patient outcomes in diabetes management and primary care consultations,[3,4,5,7] as well as providing emergency patients with shorter wait times compared to physicians.[10] By assisting in investigating, diagnosing, and treating common or familiar illnesses, NPs can effectively reduce the workload of physicians and increase overall team performance. In cases where NPs are uncomfortable with diagnosis or treatment, they will always have the option to consult medical specialists for advice. Finally, although NPs and general practitioners (GPs) are no different in their costs to healthcare funding,[11] historically, NPs have been more willing to practice in rural areas than newly trained GPs so the expansion of NPs may improve the access to care in underserved rural populations.[12]

LIMITATIONS TO NPS IN CANADA

Job opportunities and compensation

Despite the many years of clinical practice, advanced training, and tuition/licensing fees required for NP licensure, NP salaries in Canada vary radically between provinces and individual healthcare settings. In 2009, the average hourly wage of NPs across Canada ranged from $29.00 to $56.45.[13] This phenomenon may be due to a lack of unionization for NPs, making compensation negotiations less standardized and thus generating large discrepancies in NP salaries across different provinces. Indeed, in BC, where NP compensation is comparatively generous, there is actually a job shortage of NPs.[14] In 2011, the British Columbia Nurse Practicioner Association (BCNPA) reported that out of the 240 certified NPs (213 trained and 27 new graduates), 55 (22.9%) were actively seeking employment.[14] While this trend may not

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be present across Canada, it is crucial to recognize that the NP profession cannot expand unless job availability is ensured.

Role definition and acceptance from stakeholders

Besides variable compensation, another major barrier to enhancing NP integration is role definition. Explored in more detail by Sangster-Gormley et al., the general lack of role definition and role standardization confuses co-workers as to the NP's capacity and responsibility; in turn, this leads to a general lack of support and acceptance of NPs in the hospital environment.[15,16]

In some extreme cases, GPs have voiced their concern that the introduction of NPs will disrupt continuity of care and therapeutic relationships between the family doctor and his or her patients, as well as ultimately replace GPs with NPs as the latter are less costly to employ.[17] Other physicians argue that NPs have insufficient training and experience, and thus should have limited autonomy.[15]

NPs have also experienced difficulties in patient acceptance. Despite steady growth, the NP is still a relatively new profession in Canada and patients may not associate a nurse with someone who diagnoses, prescribes, and follows up.[18, 19] In fact, Sawchenko et al. conducted a survey about NPs in 2008 in BC and found that only 48% of the respondents had heard of NPs.[20] Once they were informed about the role of NPs, 73% of the respondents were willing to be assessed by NPs instead of physicians, while 23% were unwilling.[20] Clearly, patient awareness and acceptance are areas that must be improved in order to increase NP utilisation.

Table 1. Comparison of roles between registered nurses, nurse practitioners, and family physicians.

	Registered Nurse	Nurse Practioner	Family Physician (General Practitioner)
Assessment	Limited	Yes	Yes
Diagnosis	Limited (nursing diagnosis only)	Yes	Yes
Intervention	Yes	Yes	Yes
Prescription	No	Limited (No controlled substances)	Yes
Evaluation	Yes	Yes	Yes

RECOMMENDATIONS FOR IMPROVEMENT

Reduce income variability and improve job availability

The transition of an RN into an NP results in increased responsibility and scope of practice; unfortunately, this promotion is accompanied by uncertain employment prospects and potentially less compensation. The creation of a common negotiating body and standardization of provincial policies for NP compensation can help address the issue of variable income, while close collaborations between educational institutions offering an NP program and policy makers who allocate funding for hiring NPs can help address the issue of unmatched supply and demand for NPs in each province.

Promote public awareness and understanding

As most nurses focus on supporting physicians and following their management orders, it is unsurprising that a large proportion of the general population is unfamiliar with the concept of a nurse who can practice like a doctor. In order for more NPs to successfully integrate into our healthcare system, patient acceptance and appreciation of NPs as leaders in primary care needs to be established. Hence, increasing public knowledge, understanding, and recognition are important first steps in expanding the role of NPs. Possible strategies include creating media broadcasts, providing information pamphlets in care centres, and increasing exposure of educational websites.

Promote professional acceptance by better defining role boundaries

The role of NPs must be better defined in individual healthcare settings. Although an NP's legal scope of practice and professional capacity may not be significantly different from GPs (Table 1), their worksite specific roles vary greatly depending on location and situation. This role variability can become an advantage if it is well defined and understood by both the NP and the specific healthcare team prior to the onset of employment. This mutually accepted role definition allows for a framework for inter-professional cooperation that would provide a foundation for effective patient management in primary care settings with both physicians and NPs. By clearly outlining which types of patient situations are better suited for physician or NP management, healthcare centres will be able to promote more efficient cooperation and health care. Furthermore, NPs should be encouraged to consult medical specialists for advice in cases where they are uncomfortable with diagnosis or treatment. As an example, Sangster-Gormley et al. made three recommendations for improving NP integration, which can be summarized as:

1. Involving stakeholders, such as managers and physicians, in defining the roles of NPs in their workplace. As healthcare professionals generally work in teams, this will promote an understanding of the NP's scope of practice and how they can function in the team to promote patient care.
2. Accepting NPs as team members and placing value in their prior experiences by other members of the healthcare team.
3. Declaring the intention of integrating an NP into the healthcare team. By doing so, expectations and professional roles can be defined early to promote team logistics and collaboration.

CONCLUSION

As members of a patient-centred healthcare system, all healthcare professionals should work collectively to implement reforms that improve patient care. While NPs are not trained to provide care equivalent to physicians, they have demonstrated their ability to provide timely, quality care in rural and urban settings, and hence can work together with physicians to improve the efficiency of health delivery. Despite initiative by the Canadian government, poorly defined professional roles and scopes of practice, variable income, and lack of job opportunities impede the growth of the NP profession. With the current shortage of primary care physicians,

especially in rural areas, as well as the retirement of baby-boomers, now is the time when effective integration of NPs can help improve our healthcare system.[21] By addressing the major barriers to NP expansion, healthcare systems can maximize the potential of NPs as experienced and flexible healthcare providers.

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Online Videos: A New Tool for Medical Education

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ABSTRACT

Currently, most Canadian medical schools educate students on core biomedical knowledge through lecture-based courses. However, recent studies indicate that passive lecture-based university courses fail to educate students in an efficient manner. In response, Dr. Sebastian Thrun and Sal Khan separately developed successful online educational models that engage students with interactive online videos focusing on fundamental concepts. This use of online interactive videos represents a new educational tool medical schools can use to engage students in active learning and also as a way to provide standardized teaching to students dispersed across several hospitals or at different campuses.

KEYWORDS: *vodcasting, online education, lectures, video, medical education*

A NEW EDUCATIONAL TOOL

In autumn of 2011, computer science professor Dr. Sebastian Thrun created an online version of "Introduction to Artificial Intelligence" that ran parallel to his course at Stanford University. However, he made this online course available to anyone outside the university.[1] Two unexpected outcomes occurred. First, within weeks of offering the course 58,000 students enrolled, and in the end, over 160,000 non-Stanford students from across the globe completed the course.[1,2] The second, and most unsettling outcome for Stanford, was that of the 200 students in Dr. Thrun's class on campus, 170 stopped attending class, preferring to learn through the online lectures.[3]

Dr. Thurn's online artificial intelligence course was a success in part because it was interactive. All of the videos involved him explaining concepts on a piece of paper with frequent pauses for multiple choice questions or requests for the student to correctly label part of a diagram.[4] This teaching

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