NURSES PRESCRIBING
A CRITICAL REVIEW

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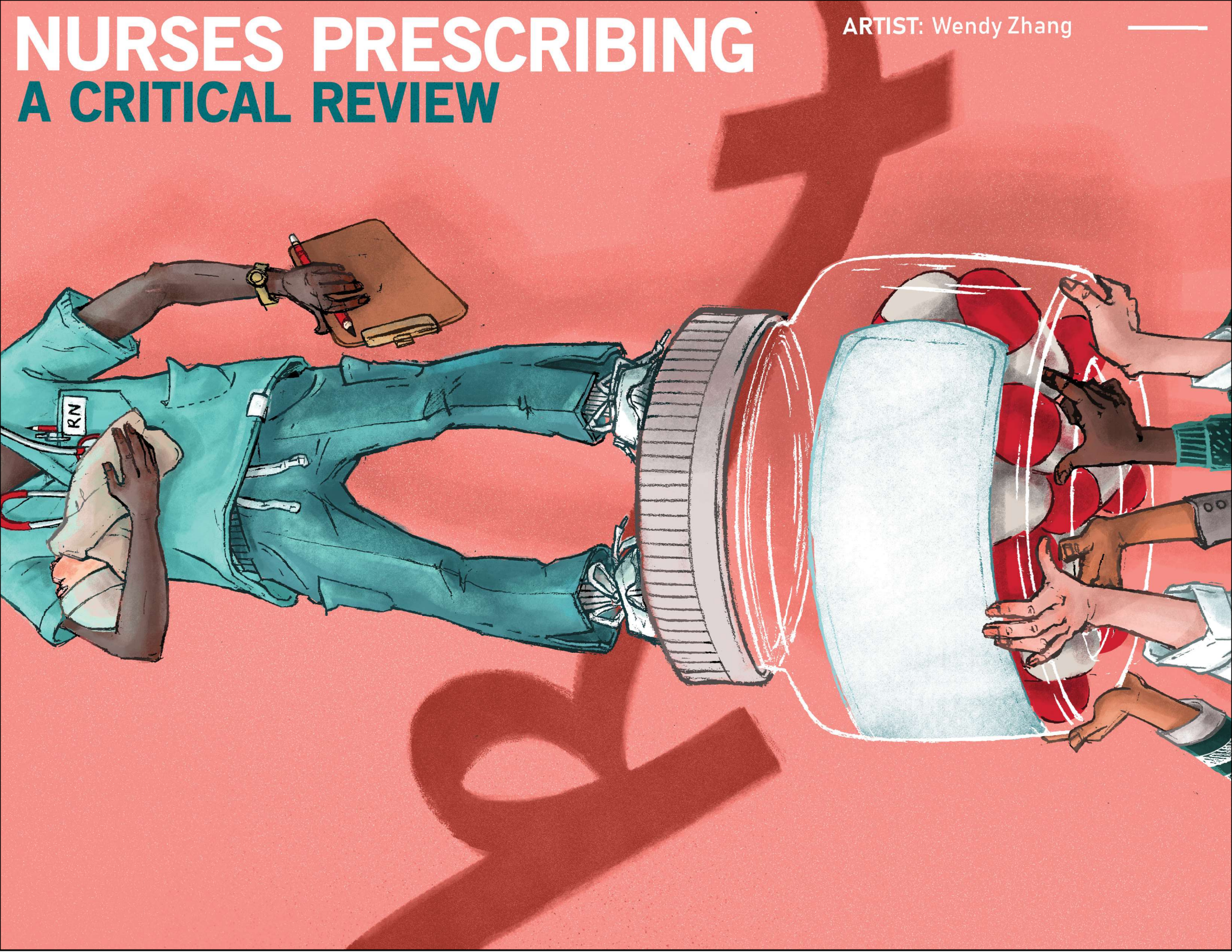

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ABSTRACT

Since the advent of legal non-medical prescribing in 1992, the number of non-medical prescribers, especially nurses, has been rapidly increasing. Although pending legislative development, Ontario has followed suit by legally permitting nurses to prescribe for non-complex conditions such as immunizations, contraception, and travel medicine. Enacted in response to criticisms on the quality of primary care and accessibility of necessary medical interventions in Ontario, non-medical prescribing is hoped to increase clinical effectiveness, quality of care, and job satisfaction for nurses, physicians, and allied health professionals. However, legitimate concerns have been raised about the safety of nurse prescribing and its impact on the coordination of care between nurses and physicians.

INTRODUCTION

According to the World Health Organization (WHO), maximizing the roles of existing healthcare workers is critical for the modernization of healthcare.[1] This means the historical constraints and traditions within healthcare must be re-evaluated. One example of this is expanding the practice of legal prescribing to non-doctor healthcare professionals.

In May 2017, the Ontario government officially permitted registered nurses (RNs) to "prescribe medications and communicate a diagnosis for the purpose of prescribing." The College of Nurses of Ontario (CNO) has been tasked with implementing the regulatory framework that will make this possible, with a focus on the expanded scope of practice and setting the necessary requirements for nurse prescribers.[2] The CNO plans to take a phased approach, allowing nurse prescribers to initially prescribe for non-complex conditions (e.g. immunizations, contraception, wound care) in community settings. Upon further evaluation, the CNO will consider the inclusion of prescribing for more complex conditions (e.g. chronic conditions, infections) in secondary and tertiary care.

The Registered Nurses' Association of Ontario called for this change in 2012 amidst growing concerns about timely access to medications, especially amongst vulnerable populations.[3] The Commonwealth Fund found that Canada consistently scores lower in timely access to healthcare and primary care compared to other OECD countries.[4] In 2017, the median wait time for medically necessary treatment in Canada was a record high of 21.2 weeks, a 128% increase from 9.3 weeks in 1993.[5]

The CNO plans to publish the new regulations and by-laws by December 2018. Once enacted, Ontario will become the first province in Canada where RNs can prescribe.[2] However, Canada is not the first country to make this change, as there are currently nine countries that provide RNs with prescribing privileges.[6] As a result, there exists an established body of literature that has investigated the impacts of nurse prescribing. This critical review will explore what is currently known about the safety and clinical outcomes associated with nurse prescribing. Moreover, the perspectives of various stakeholders including patients, nurses, and physicians will also be explored.

PATIENT SAFETY AND OUTCOMES

Prescribing is a highly complex decision-making process requiring extensive knowledge and technical judgement.[6] The WHO defines rational prescribing as, "patients receiving medications appropriate for their clinical needs, in doses that meet their own individual requirements, for an adequate period of time, and at the lowest cost to them and their community."[7] The most dominant criticism for nurses prescribing is whether nurses can accomplish this safely and effectively.

In a multi-center study conducted in Ireland, two independent expert reviewers evaluated the prescribing records of 25 nurse prescribers to assess their clinical decision-making.[8] They found that the medications prescribed were

clinically appropriate in 99% of all cases. Upon follow-up, only one adverse medication event was found. However, errors related to dosages, drug-drug interactions, and drug-disease interactions were common.[8] In addition, another study with a similar design also found that experts widely considered nurse prescriber prescriptions as clinically appropriate but had potential errors related to drug-disease interactions and duration of therapy.[9] Many of these errors were pharmacologically-related, which validated a common concern that nurses may not possess the pharmacological knowledge to safely prescribe.[10] In response, nurses voiced concerns that educational and continuing professional development programs had glaring inadequacies related to pharmacology.[11] Inadequate knowledge in pharmacology and medication competence were also identified at the undergraduate level.[12] It is crucial that educational programs at both the undergraduate and professional level adequately prepare nurses to prescribe in order to ensure patient safety.

Another method of assessing patient safety is evaluating clinical outcomes. Evidence that nurse prescribing will lead to similar or better outcomes compared to physician prescribing is inconsistent. One randomized control trial (RCT) assessing diabetic patients treated by nurse prescribers versus physicians found no differences in blood pressure or HbA1c levels, a measure of blood glucose, between the two groups.[13] However, another RCT showed greater diabetes symptoms and quality of life deterioration under the care of a nurse prescriber. Further studies, especially large RCTs and longitudinal studies, are necessary to accurately assess the clinical outcomes of nurse prescribing.[14]

PATIENTS' PERSPECTIVES

Much of the current research supports the view that nurse prescribing leads to high patient satisfaction.[10,14] As patient experience and satisfaction are critical indicators for quality of care, these measures are highly relevant and commonly used to inform health service improvements.[15] According to patients, nurse prescribing received positive evaluations due to improved accessibility and efficiency of health services. Access to a nurse prescriber increases the number of appointments patients can make with a health professional. It is also associated with improved flexibility through telephone access and home visits.[16] Nurse prescribers can also offer the practicality of being assessed, diagnosed, and prescribed in a single visit, reducing the number of unnecessary referrals and consultations.[17]

Patients have also reported differences in the consultation style of nurse prescribers compared to physicians, with nurse prescribers being described as more approachable, attentive, and communicative.[18] A study evaluating the effectiveness of nurse prescriber-led dermatology clinics showed that nurse prescribers adhere to high quality communication, information provision, patient-centred care and consultation time, which are central aspects of effective treatment.[19,20] Patients interviewed after their clinic visit reported that nurse prescribers showed greater interest in their concerns and involved them in the treatment decision-making process more frequently than physicians. They also reported having more time to discuss their treatment plans with a nurse prescriber compared to a physician.[20] Longer consultations allow for improved information provision and patient education. For example, in an RCT comparing nurse prescriber care to general practitioner (GP) care, participants in the nurse prescriber group reported receiving significantly more information about their symptoms, medication, lifestyle interventions, and were consulted about compliance more frequently.[21] These reported benefits were of particular importance considering the increasing burden of chronic disorders on the healthcare system, accompanied by the increasing complexity and length of treatment plans.

NURSES' PERSPECTIVES

Nurses have widely reported that being able to prescribe has improved their ability to provide care. In fact, some nurses have reported they already assist with prescribing on a regularly basis, and this change would simply formalize the process.[22] Nurse prescribers have claimed this change has increased the amount of time they spend with patients and has allowed for more holistic care.[23] Improved job satisfaction is also a commonly reported benefit of prescribing, with one study citing increased autonomy in areas of competency as a common reason.[24,25] However, not all aspects of prescribing are associated with improved job satisfaction. Nurses have reported that the increased

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workload and responsibility that comes with prescribing is associated with significant work-related stress and anxiety.[25] Fear of litigation, time constraints, pressure from patients and physicians, continuous need to update competencies, and an additional documentation burden have all been described as negative implications of prescribing.[25,26] This is especially important considering the high prevalence of burnout that already exists in nursing, which could result in poor quality of care and negative patient outcomes.[27] To ensure that the benefits of nurse prescribing are sustainable, the additional challenges and stressors nurse prescribers will face must be addressed.

PHYSICIANS' PERSPECTIVES

The Health Professions Regulatory Advisory Council (HRPAC) surveyed various stakeholders in Ontario, including physician associations, and found that only 52.4% of respondents agreed that having RNs prescribe would improve patient well-being. Among all health professions, physicians tended to be the most divided when it came to nurse prescribing.[10]

Physicians voicing their approval of nurse prescribing state an improvement in quality of care. Doctors have reported nurse prescribers can uniquely benefit patients because of their proficiency in relationship building.[28] One reason for this is RNs tend to have prolonged and continuous contact with their patients, which could maximize patient autonomy.[28] Moreover, nurse prescribers have the potential to directly improve the care physicians provide by reducing physicians' patient load and time spent on routine tasks, thus increasing time available for more complex cases.[29]

On the other hand, safety is a key concern that physicians have when considering nurse prescribing. Studies have shown that doctors were far more trusting of nurse prescribers if they had previously worked with them for a long time.[22,28] However, this marginalizes new and inexperienced nurse prescribers who rely on physicians for informal support and training. Physicians have also raised concerns about role clarity, professional boundaries, and the impact an additional prescriber will have on their autonomy to lead care plans.[22] Boundaries are essential for maintaining professional identity and power; therefore, blurred boundaries are a common source of conflict between nurses and physicians.[30] This is especially important considering pre-existing nurse-physician tensions.[31] Both nurses and physicians agree that having an additional prescriber will complicate the coordination of care. Thus, improved communication between the two professions will be necessary.[28]

Important factors to successfully implement nurse prescribing at an organizational level include a highly committed and supportive team as well as a clear vision of how nurse prescribing can improve patient care.[32] Policies alone are insufficient to ensure behavioural changes, and the successful translation of this new policy into action demands that both nurses and physicians examine their own values and biases.

CONCLUSION

To improve access to care, nurses in Ontario have been legally permitted to prescribe certain medications, which represents a step forward in the current trend of expanding the responsibilities of healthcare professionals. Although evidence suggests that nurses are capable of prescribing medications for various clinical conditions, the potential impact this will have on the number of medication errors is unclear. Moreover, views from various stakeholders including patients, nurses, and physicians have been mixed. Many see benefits related to patient and job satisfaction, but also recognize its potential to complicate the delivery of health services. As further research is conducted and clinical guidelines become established, a more definitive picture of this change will emerge. ■

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