Non-Adherence to Prescribed Therapies: Pharmacare's Existential Challenge

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Abstract

Pharmacare, a recently proposed addition to Canada's universal medicare program, has become a prominent topic in the public discourse, but funding and leadership have not been established. Repeated Health Care in Canada (HCIC) surveys of the adult public and a broad spectrum of health professionals reveal very strong support for a national system that is easy to access and covers all prescribed pharmaceuticals. Although the practical details of universal pharmacare remain to be established, there is strong support among the public and professionals as well as increasing federal government interest in moving forward and ultimately implementing pharmacare. At the same time, HCIC surveys indicate that a high percentage of patients do not take their medications as directed, both for acute and chronic illnesses. The data suggest that pharmacare's success will be severely challenged by this. Of the four major challenges preventing usual care from being the best care – suboptimal access, non-diagnosis, non-prescription and non-adherence – risk from some form of non-adherence is often ranked first by care professionals. The most commonly reported reasons for non-adherence in clinical settings are patients' forgetfulness and how they feel in the moment on any given day. Costs of therapy, lack of understanding or poor knowledge transfer between prescribers and patients regarding therapeutic risks and benefits are rarely cited causes for poor adherence. These findings from the 2018 HCIC survey are not new. They are very consistent with measurements in the 2016 and other previous HCIC surveys. They do, however, raise practical challenges for the creation and ongoing management of universal pharmacare. Specifically, a patient-centred care component designed to improve non-adherence to prescribed therapies is needed. Ideally, it should include a measurement and feedback component on adherence that shares data with and between patients, health professionals and payers. Things can be better.

Introduction

The Health Care in Canada (HCIC) partnership and surveys were initiated two decades ago to measure and report the opinions of the Canadian adult public and healthcare professionals regarding key challenges, operational performance and future opportunities surrounding Canada's healthcare system (Montague et al. 2016, 2017a, 2018; Nemis-White et al. 2014). HCIC members share a common and basic view: measurement and feedback of key data are the best available tools to inform, guide and expedite improved health policies and patient outcomes, particularly in reducing the gaps between usual care and best evidence-based care.

Partners, Data Acquisition and Knowledge Translation

Current HCIC members include the Canadian Cancer Society, Canadian Home Care Association, Canadian Hospice Palliative Care Association, Canadian Medical Association, Canadian Nurses Association, Canadian Pharmacists Association, Constance Lethbridge Rehabilitation Centre/ Centre for Interdisciplinary Research in Rehabilitation, McGill University, Health Charities Coalition of Canada, HealthCare*CAN*, Innovative Medicines Canada, Institute of Health Economics, Studer Group Canada, Merck Canada, Strive Health Management Consulting and Care*Net* Health Management Consulting. Pollara Strategic Insights has consistently provided professional leadership regarding question formatting, data collection and collation for all surveys in collaboration with the general HCIC membership and Knowledge Translation Committee.

Data sources for all surveys are representative samples of the Canadian adult public and a broad spectrum of clinical and administrative health professionals. For the 2016 and 2018 surveys, the public sample sizes were 1,500 and the professional samples averaged 100 for each professional group of doctors, nurses, pharmacists, administrators and other professionals (e.g., dietitians, occupational therapists, physical therapists, psychologists and social workers). Probability samples of these sizes provide an estimated ±2.5% margin of error for the public responses and ±9.8% for each professional group (excluding "other professionals," which does not have an estimated margin of error).

This article summarizes a major and persistent cause of care gaps: the less-than-optimal adherence to prescribed medical therapies (HCIC Survey 2018; Montague 2004; Montague et al. 2017b; Wahl et al. 2005). It also suggests that the adoption of innovative practices to enhance adherence in everyday clinical practice will be critical to the clinical and economic success of a national pharmacare program, widely anticipated for development and implementation across Canada in the near future.

Care Gaps

Care gaps are the difference between actual day-to-day care and best, evidence-based care (Montague 2004). When healthcare professionals were asked whether non-adherence was a primary cause of care gaps in the 2018 HCIC survey, 35% of doctors, 33% of pharmacists and 24% of nurses agreed that it was. Suboptimal adherence to recommended therapy ranked second to timely access in health professionals' view of important care gap contributions that prejudice optimal patient outcomes (HCIC Survey 2018). In previous HCIC surveys, non-adherence ranked first (Montague et al. 2017b). Non-adherence is a persistent and major factor preventing usual care from becoming the best care.

As measured in the 2018 HCIC survey, 39% of all adult Canadians were regularly taking an average of 3.3 prescribed medications for major chronic medical conditions that included diabetes, heart disease, mental health disorders, osteoporosis, asthma, bronchitis, emphysema, arthritis, cancer and memory problems interfering with daily life.

The geographic distribution of regular prescription taking among the adult public for chronic medical conditions was uniform across Canada, ranging from 47% in Alberta to 33% in Quebec and the Atlantic provinces. There was also a similar narrow range in the average number of prescription medications per patient, ranging from 3.7 in Alberta to 3.0 in British Columbia, Quebec and the Atlantic region.

Adherence

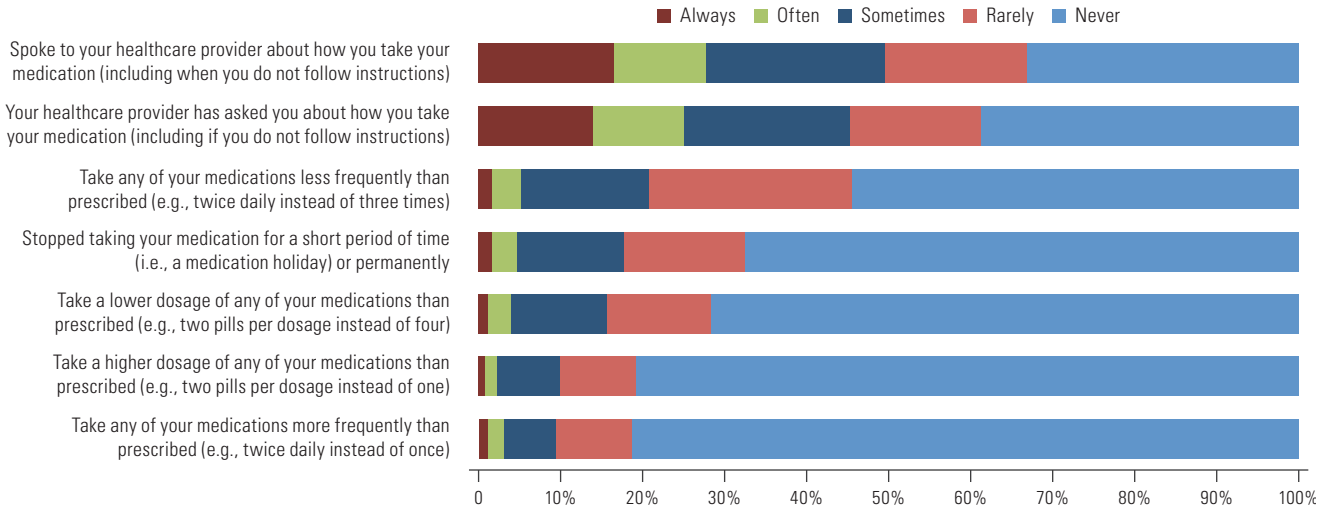
The patterns of patient–provider conversations and subsequent patient adherence practices for patients receiving chronic care prescriptions are summarized in Figure 1. Sixty-one percent of the respondents were non-adherent in some manner; that is, they did not answer "always" to the medication-taking questions posed. Stakeholder dialogue and adherence patterns for acute care prescriptions were remarkably similar, with 51% being non-adherent to their medication regimen in some way (HCIC Survey 2018). These findings are similar to those reported in the World Health Organization (WHO) published literature in 2003.

Although the HCIC survey has not measured new prescription abandonment, that is, unfilled prescriptions or primary non-adherence, researchers have observed this to be in the range of 20% for chronic conditions (Lemstra et al. 2018; Tamblyn 2016).

Of those taking a medication for a chronic illness, 90% understood very well when and how to take their medication, 86% understood the reasons the medication was prescribed, 77% knew what the medication was supposed to do and 64% understood the potential side effects. The same level of understanding was expressed for those taking medication for an acute illness (88%, 83%, 72% and 62%, respectively). In short, despite fairly high degrees of relevant conversations between prescribers and patients about the rationale and processes for taking prescribed medications, non-adherence persists in many forms.

Succinctly stated, Canadians have a high degree of understanding of the rationale, mechanics and hoped-for outcomes of their prescribed medications, for both chronic and acute diseases. The data are supported by perceptions of physicians, nurses and pharmacists, more than 90% of whom report always or often providing the reasons for prescription and how the medications work and information about side effects (HCIC Survey 2018). Thus, providing the reason and medication information appears not to be sufficient alone to positively impact medication adherence.

FIGURE 1.
Patterns of interactive patient–provider conversations and patient adherence practices as reported by adult patients with chronic illnesses in the 2018 Health Care in Canada survey, when asked "Do you do any of the following when it comes to taking your prescribed medication?" (*n* = 583)



Patient Rationale for Non-Adherence

The reasons underlying the underuse of prescribed medications by patients with chronic and acute medical issues in the 2018 HCIC survey are summarized in Figures 2 and 3. They confirm that patients with both acute and chronic diseases have similar explanations for non-adherence, aligned with findings in the 2016 HCIC survey (Montague et al. 2017b). The top two cited reasons, when asked in an open-ended manner, were forgetfulness (unintentional non-adherence) and purposeful non-adherence based on how the person feels at the time (intentional non-adherence). Of note, for those who take a lower dose than prescribed, medication cost was cited as the reason by 13% of survey respondents with a chronic illness and 4% of those with an acute illness.

Tackling Non-Adherence

Medication non-adherence is an equal-opportunity condition that crosses all socio-demographic groups, chronic and acute diseases, symptomatic and asymptomatic conditions and adults and children. A 2003 WHO report estimated that medication non-adherence costs the Canadian healthcare system $4 billion annually because of hospitalizations and physician visits (WHO 2003). An older but more comprehensive assessment of the direct and indirect costs of non-adherence in Canada was done by Coambs and the Pharmaceutical Manufacturers Association of Canada (1995), at $7–9 billion in 1993. Given the ongoing debate surrounding a national pharmacare program, addressing the non-adherence challenge now is a must. Otherwise, many more billions may be wasted and, more importantly, the health of Canadians will suffer unnecessarily.

The general consensus among adherence researchers is that medication non-adherence is more responsive to behavioural drivers (patient values, beliefs, concerns and intrinsic motivation) than focusing solely on knowledge of a medication or disease (WHO 2003). Currently, over 300 publications in the adherence literature indicate that educational/knowledge translation-based interventions have limited effectiveness.

Research suggests that both intentional and unintentional non-adherence are not random but can be predicted by a patient's medication beliefs, socio-demographics and chronic disease (Gadkari and McHorney 2012; McHorney 2009). However, doctors cannot predict adherence with any more efficiency than tossing a coin (Goldberg et al. 1998). On a pragmatic level, many Canadian healthcare providers and researchers may not even be aware of or understand the drivers of both intentional and unintentional non-adherence. So how can the adherence gaps be addressed?

Roles of the Patient and Providers

Recognizing that non-adherence to medicines crosses all disease states, practice types and patient demographics, it is reasonable to expect that it exists in every medical practice. Every patient, at some point in time, has the potential to be non-adherent to their prescribed medications. Established patterns around medication non-adherence can provide practitioners with insight regarding the window of opportunity to effectively intervene.

FIGURE 2.
The responses of the Canadian public when asked an open-ended question about their rationale for not taking medications for chronic illnesses, as recommended

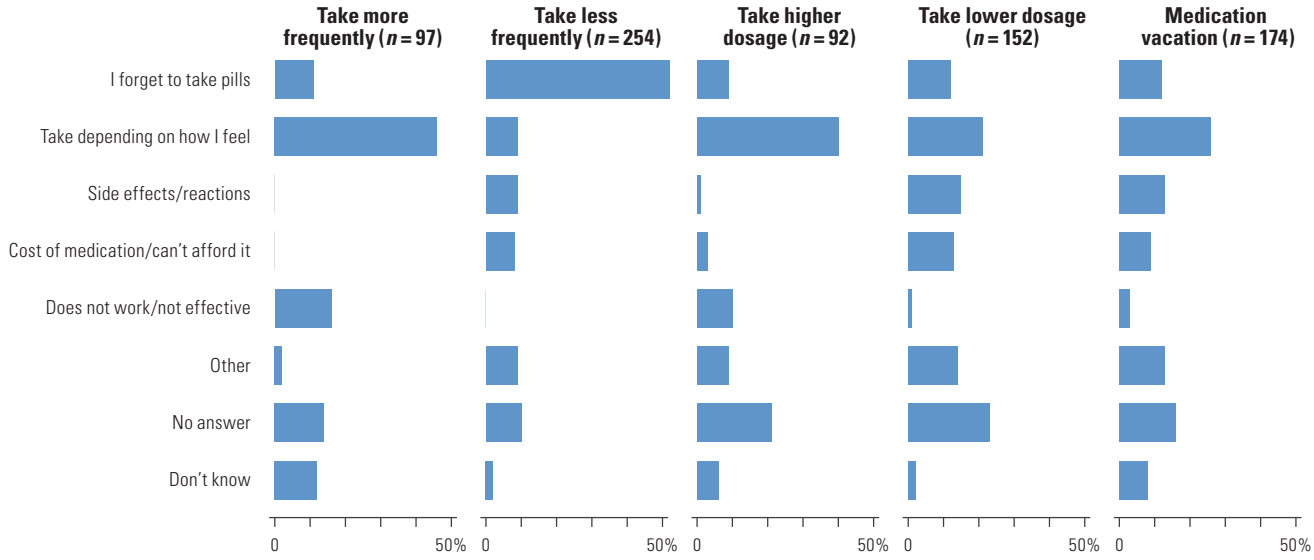
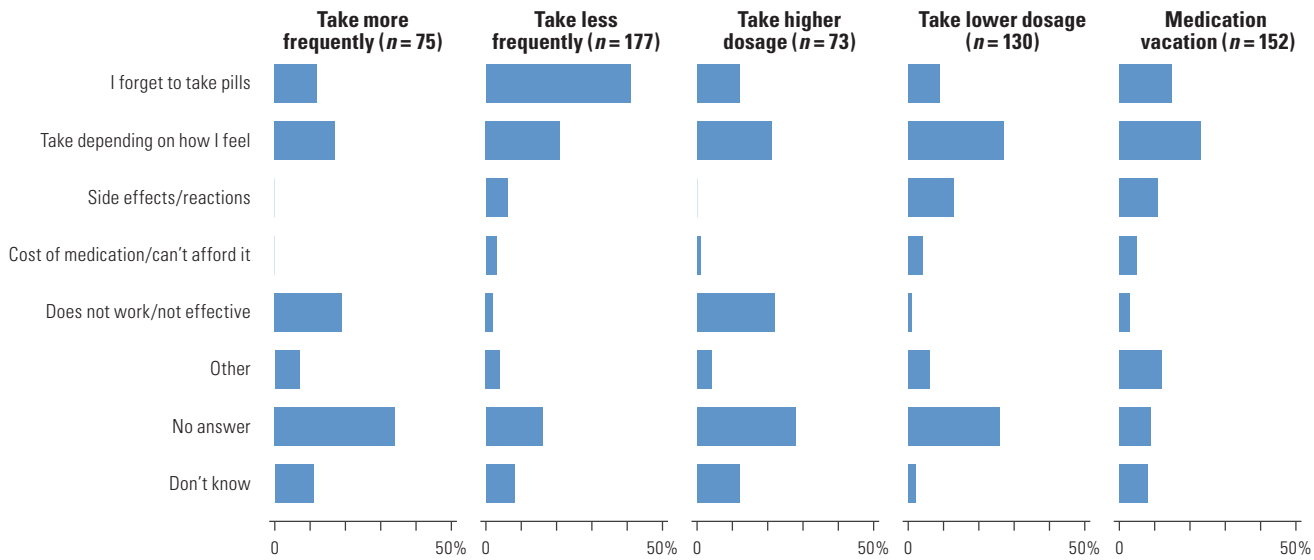


FIGURE 3.
Responses of the Canadian public when asked an open-ended question on their rationale for not taking medications for acute illnesses, as recommended



Patients starting a new medication for a chronic condition are at the highest risk for non-adherence (Gadkari and McHorney 2012; Tamblyn 2016), whereas another 50% discontinue therapy over time (WHO 2003). Thus, the time to intervene with effective patient support strategies is at the onset of therapy, including effective patient engagement, commitment and needs-based information sharing at the time of initial prescription. Because individual patients have their own reasons for not adhering to a specific prescribed medication, a single intervention applied to all patients is unlikely to be effective. For this reason, a personalized approach that recognizes individual beliefs and concerns and seeks to understand the level of commitment to a therapy prior to prescribing is a strategy worth testing.

An effective adherence support strategy should also incorporate a patient-centred approach at the pharmacy, both at the time of first prescription fill and throughout the early dispensing cycle. A recent meta-analysis of adherence studies indicated that a pharmacist-mediated intervention strategy is most effective at improving adherence to medications (Conn and Ruppar 2017). Pharmacists are uniquely positioned to identify and support patients at risk for non-adherence, in particular given their professional responsibility to counsel each patient starting on a new medication. Pharmacists have the opportunity for creating supportive dialogue that can be customized to respect the patient's autonomy while at the same time assessing commitment and evoking motivation to start and stay on therapy. They also see patients more frequently than any other healthcare professional and have access to live dispensing data at the point of care, which can be used to monitor and provide feedback on the adherence patterns of the patients they serve. This is one example of the important role the pharmacist can have in supporting patient adherence. However, a multidisciplinary approach is needed, with patient-tailored interventions designed to address those factors that influence non-adherence, monitored over time, with partnerships among trained health professionals, patients, families and patient organizations (Bosworth et al. 2017; McGinnis et al. 2014; Steiner 2012; WHO 2003). Such collaboration could lead to improved adherence rates, which in turn could positively impact patient health outcomes and health system effectiveness.

Next Steps

In summary, the 2018 HCIC survey confirms that non-adherence is a persistent and important issue impeding hoped-for and evidence-based optimal outcomes in both acute and chronic clinical settings. Patient forgetfulness and patients' sense of how they feel in the moment are the most frequent underlying reported contributing causes. In contrast, costs of therapy, lack of understanding and poor knowledge transfer between prescribers are not prominent factors contributing to non-adherence. The persistent and extensive non-adherence to pharmaceutical therapy, resulting in suboptimal medical efficacy and money wasted, presents a dire threat to a successful pharmacare program. It also represents a golden opportunity to correct systemic failures of the present fragmented approach to pharmaceutical use in Canada. For example, integrating and mandating the use of a national electronic prescribing service could illuminate the hidden issue of primary non-adherence and enable pharmacists to identify and address this significant challenge. The initiation of a national pharmacare program presents a unique opportunity to intentionally consider and build in tools that have been shown to improve medication-taking behaviours, such as electronic adherence monitoring and feedback to patients in the context of their continuing medical care (Demonceau et al. 2013). It demands a call to arms, a dedicated, patient-centred, pro-adherence strategy involving all key players, including professional providers, patients and the general public (Montague et al. 2017a, 2017b).

Things can be better. HQ

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