



Executive summary.

of mental illness in Canada:

Abstract

RAPIDS facilitates early diagnosis and provides effective treatment planning for mental health disorders. Challenges in timely access to appropriate care are seen at the primary care level, where most mental health issues are diagnosed and treated. Unfortunately, the lack of availability of primary care providers — together with the increasing pressures on these practitioners — underscores the urgent need to address the situation.

Despite the availability of empirical evidence demonstrating its value, few clinicians can access or utilize standardized therapeutic decision-making programs. By expanding the use of innovative technology, we can transform the patient journey and reduce the burden on primary care practitioners, all while

improving access and quality.



Impact of mental illness

Prior to the COVID-19 pandemic, an estimated <u>1 in 5 Canadians</u> experienced symptoms of mental illness annually; during the pandemic, the number of people with anxiety and depression symptoms <u>increased significantly</u>. All psychiatric disorders are associated with emotional distress, functional impairment and a reduced quality of life.

Mental illness is common: up to 20% of primary care patients suffer from mental illnesses such as anxiety and depression, and 43% to 60% of treatment for psychiatric conditions occurs in primary care. Patients with mental illness are at risk for poor quality of life, high medical costs, poor health outcomes, and high mortality rates, especially when they have comorbid medical illness. Therefore, improving the diagnosis and treatment of mental illness in primary care is critical to improving outcomes.

The evidence is clear: early intervention reduces unnecessary suffering, morbidity, and mortality. Unfortunately, delays in treatment are the norm: 62% of Canadians with a mood and/or anxiety disorder diagnosis report that they didn't receive their diagnosis until over a year after symptoms began.

Increasingly, we are identifying contributing factors leading to the prevalence of untreated or under-treated mental illness. At its core, much stems from a lack of timely access to high-quality care, diagnostic inaccuracy, and ineffective treatment. While there is urgent attention to building health system capacity, increasing the number of primary care providers and mental health care professionals, and introducing new collaborative care models, these solutions do not address one of the most fundamental barriers to quality and timely mental healthcare: high misdiagnosis rates and ineffective treatment.

In this paper, we explore some of the contributing factors that have brought us to this state, and, we hope, lay the foundation for the consideration of technology and services to support our primary care providers.



Many mental illnesses are progressive, inflammatory brain disorders that cause structural and functional brain changes.

Treating with urgency is critical; delays in treatment are costly — to patients and the healthcare system.



Diagnostic inaccuracy

In Canada, misdiagnosis rates for psychiatric disorders in primary care range from <u>66% to 98%</u>. This is not a uniquely Canadian story, as challenges are prevalent elsewhere.

In general, <u>primary care providers report high levels of uncertainty</u> in their clinical skills in the diagnosis and treatment of mental illness, and misdiagnosis rates are similar in many other countries.

There are complex factors contributing to high misdiagnosis rates including:



Lack of provider training and preparedness.

<u>Primary care providers (PCPs) are the providers responsible</u> for much of the coordination and provision of mental healthcare. Yet, many <u>PCPs do not feel prepared</u> to manage mental illness after residency, and lack of adequate training is negatively associated with PCPs' willingness to accept patients with mental illness.



Symptom variation and overlap.

Every psychiatric diagnosis has multiple clinical presentations. <u>For example</u>, while some patients with major depression present with classic depression symptoms, such as depressed mood, others deny feeling sad, instead describing feeling numb or feeling nothing at all, but have lost their interest or pleasure in activities they previously enjoyed.



Psychiatric comorbidity.

Many patients have comorbid psychiatric conditions, which means they meet the criteria for two or more psychiatric disorders simultaneously and may require different treatment approaches for each disorder. The <u>lifetime prevalence of psychiatric and medical comorbidities</u> in adults with bipolar disorders is estimated to be approximately 90% and 50% of individuals with bipolar disorders are affected by polymorbidity (i.e., have three or more comorbid conditions).



Physical and psychiatric symptom overlap.

Symptom overlap can lead to <u>diagnostic confusion</u>. Some common physical disorders, such as dementia or thyroid dysfunction, can present with psychiatric symptoms, leading to their misdiagnosis as a psychiatric disorder.



Lack of objective diagnostic testing.

The diagnosis of psychiatric disorders relies on identifying typical symptom profiles and is dependent on the reliability and use of psychometric instruments, the utilization of up-to-date clinical guidelines and a clinician's subjective clinical experience. The lack of objective diagnostic tests, such as diagnostic imaging or lab findings, significantly contributes to diagnostic and treatment inaccuracy and delays, increasing the cost and suffering associated with psychiatric conditions.



Treatment effectiveness

Determining the most appropriate treatment for a mental illness requires careful consideration of many factors.

A number of studies have shown the value of psychotherapy (AKA talk therapy), particularly cognitive-behavioural therapy (CBT), especially for major depressive disorder (MDD), anxiety, and insomnia. However, psychotherapy can be costly, challenging to access, and laborious.

While medication is not required for every person diagnosed with a mental illness, for some conditions, especially when severe, medication is a crucial aspect of achieving and maintaining full symptomatic and functional recovery.

Unfortunately, the high rate of psychiatric misdiagnosis means the approach to treatment is frequently suboptimal. Challenges to determining and delivering the correct treatment for mental illnesses are many and include:

Treatment selection.



Every patient has a different set of symptoms, comorbidities, previous treatment experiences and psychosocial circumstances. Personalizing treatment is time intensive and requires effective communication between the prescriber and their patient, ongoing education, and access to different treatment options. Finding the best treatment often requires a trial-and-error approach, as each individual has a unique brain with unique needs. While every Health Canada and FDA approved antidepressant works, it won't work for every person.



Special populations.

Drug manufacturers rarely seek regulatory approval for the use of their products in children, adolescents, pregnant or breastfeeding women, or the elderly. This means when a patient is pregnant or isn't between the ages of 18 and 65, prescribing becomes more challenging, especially for clinicians who lack confidence and experience.



Side effects and non-adherence.

The side-effects of medication can become increasingly burdensome with time and significantly impact medication adherence. Prescribers must consider treatment sustainability when selecting a medication, as <u>most mental illnesses require long-term</u> treatment to maintain wellness.



Treating with a sense of urgency.

Patients diagnosed with a psychiatric disorder benefit from early, effective treatment, which should be approached with a sense of urgency.





How did we get here?

Many factors have contributed to the lack of timely access to high-quality mental healthcare, including:

Lack of access to a primary care provider (PCP).



The majority of mental healthcare services in Canada are provided by non-psychiatrists, usually PCPs. International studies show that roughly a third of PCP consultations involve individuals with a diagnosable mental illness. According to a study published in September 2022, one-half of Canadians either can't find a PCP or are unable to get a timely appointment. Among physicians providing clinical care, burnout nearly doubled during the pandemic, with more than half (53%) reporting they're experiencing high or very high levels of burnout. The challenge of accessing primary care is compounded by the near impossibility of obtaining a timely psychiatric consultation: family doctors describe psychiatrists as the most difficult specialists to access.

Inadequate PCP training.



The <u>lack of comprehensive psychoeducation for non-psychiatric clinicians is a major factor</u> behind unacceptably high rates of misdiagnosis by non-mental health practitioners. Many Canadian family medicine residency programs require little or no psychiatric training. Yet, psychiatry has evolved, with significant advances in the understanding of the genetic and inflammatory bases of many DSM-5 disorders. Despite advances, the training of PCPs and other health professionals is outdated, rarely including scientific advances or newer treatments.

Comprehensive psychoeducation directed at non-psychiatric physicians and earlier access to psychiatric expertise have been shown to improve clinical outcomes in patients with a mental illness.



Barriers to effective collaboration.



Accessing psychiatric guidance from a specialist colleague is challenging—if not impossible—for most PCPs. In a Quebec study looking at the collaboration between PCPs and mental healthcare professionals, numerous factors were identified as hindering shared care, including a lack of resources (either professionals or programs), long wait times, lack of training, time and incentives for collaboration, and inadequate payment for PCP services.

Stigma.

Mental illness-related stigma exists within the healthcare system and among healthcare practitioners, which creates significant barriers to access and care quality. This stigma can include negative attitudes and behaviours, lack of knowledge, skills and awareness, and therapeutic pessimism. Without strong medical leadership and ongoing high-quality education, such stigma will continue to pervade healthcare workplace culture.

Lack of access to psychiatric expertise at the point of care.



Unlike most medical disorders, psychiatry lacks biological markers (laboratory and imaging tests) that reliably support a diagnosis and help determine the best treatment. This means making an accurate diagnosis and finding an effective, tolerable treatment is inexact, more complex, and time-intensive. Robust clinical decision support systems could provide healthcare practitioners with best-practice information at the point of care, but these tools are currently lacking.

Guidelines developed for mental illnesses are often out-of-date, challenging to access and utilize, and thus, rarely followed. However, rigorous implementation of guideline-directed approaches to psychiatric care, utilizing standardized therapeutic decision-making programs and providing sequential treatment strategies, have been shown to improve clinical outcomes and have also demonstrated cost-effectiveness.



Lack of technology at the point of care.

Despite the availability of empirical evidence demonstrating its value, few clinicians can access or utilize standardized therapeutic decision-making programs. All areas of medicine, including psychiatry, have validated the importance of algorithm-based care, which is more accurately defined as evidence-based guidance for clinical decision making. Findings from the German Algorithm Project (GAP) demonstrated that employing a highly structured algorithm-guided treatment for depression was associated with a shorter time to remission and the need for fewer medications to achieve remission, compared with treatment-as-usual or less specific computerized medication guidance.

Overcoming these barriers requires scalable, sustainable solutions that will make a meaningful difference.





It's time for change.

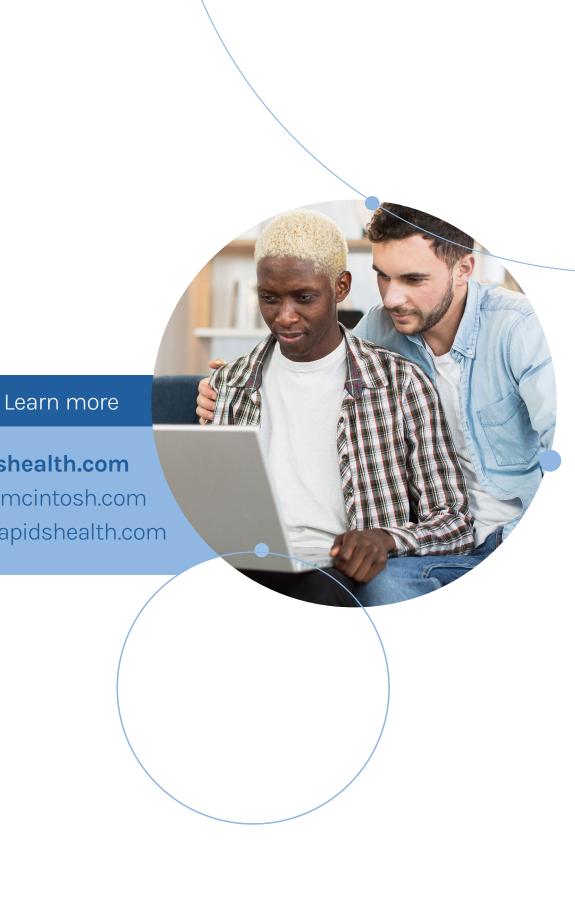
Mental healthcare urgently requires transformation with technological advances that support access to timely, accurate and effective mental healthcare.

We need technology if we are to address some of the root causes of misdiagnosis and ineffective treatment, to ensure our primary care practitioners have the support and knowledge they need to provide the best possible care. This strategy can also help patients stay with their primary care provider — who knows them best — and reduce avoidable referrals to scarce psychiatric specialists.

Primary care providers face many barriers in formulating an accurate diagnosis and effective treatment plan, which are essential to set their patient on the path to recovery. By better supporting the people who support us, we hope to enhance the provider experience, lessen some of the factors leading to burnout, foster higher-quality healthcare delivery, and strengthen compassion and respect for patients.

By transforming a patient's journey, we can reduce suffering, improve functioning, increase hope, and maintain dignity.

It's time to create a more effective and economically sustainable mental healthcare system.



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