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The walk-in clinic model improves access to psychiatry in primary care

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ABSTRACT

Objective: Missed appointments decrease clinic capacity and negatively affect health outcomes. The objective of this study was to increase the proportion of filled initial psychiatry appointments in an urban, hospital-based primary care practice.
Methods: Patients were identified as having a high or low risk of missing their initial psychiatry appointments based on prior missed medical appointments. High-risk patients were referred to a walk-in clinic instead of a scheduled appointment. The primary outcome was ratio of filled appointments to booked appointments. We used a statistical process control chart (p chart) to measure improvement. Secondary outcomes were percentages of patients from historically underserved groups who received an initial psychiatry evaluation before and after the intervention.
Results: The average ratio of filled to booked initial appointments increased from 59% to 77% after the intervention, and the p chart confirmed that this change represented special cause variation. No statistically significant demographic differences between the patients who received psychiatric evaluations before and after the intervention were found.
Conclusions: Missed initial psychiatry appointments can be accurately predicted by prior missed medical appointments. A referral-based walk-in clinic is feasible and does not reduce access to care for historically underserved patient groups.

1. Introduction

Missed outpatient appointments pose a tremendous problem for healthcare systems.

Beyond the regrettable consumption of clinic resources and clinician time, missed primary care appointments are associated with increased depression severity [1], poorer control of chronic conditions [2,3], higher numbers of psychiatric and medical comorbidities [4,5], and decreased receipt of preventive services [3]. Patients who miss primary care appointments have been shown to make more emergency department (ED) visits [3,6], reflecting an important relationship between decreased use of outpatient services and increased frequency of health emergencies as well as increased overall health care costs.

Frequency of missed appointments varies considerably between settings, from 5% to 55% according to previous studies [7]. The problem of missed primary care appointments appears to disproportionately affect underserved populations. Younger age [3,8,9], racial minority [2,4,8,10,11], Medicaid insurance [4,6,8], lower educational level [12], and residence in an underserved neighborhood [9] have all been associated with a higher risk of missed appointments. In teaching settings, treatment by a resident as opposed to a staff physician is also a risk factor for missed appointments [3,6].

Patients commonly cite forgetting the appointment time as the reason for a missed appointment [8,13], and implementation of appointment reminders can improve attendance rates [14–16]. However, many patients who miss appointments cannot be reached by phone or do not provide accurate phone records [8,16]. Patients with fewer resources may also have competing priorities that cannot universally be addressed by a reminder system or limit-setting. Research has found that patients from underserved populations deliberately neglected their own health as a strategy to meet other needs, including their children's needs and other living expenses [17]. Other studies have identified that problems in housing, transportation, and employment compete with health problems for patients' attention [18,19].

The traditional model of expecting healthcare recipients to schedule and keep their own appointments in order to access outpatient care does not seem to work for all patients, particularly those who are historically underserved and have the highest burden of medical and

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psychiatric disease. Because untreated psychiatric illness appears to contribute independently to inappropriate use of medical resources [20], and higher rates of missed appointments have been described for new evaluations than for follow-ups [20], we chose to intervene at the level of psychiatry referral from primary care. Our study presents the application of a referral-based walk-in model for initial psychiatry appointments in a primary care clinic to better reach the patients who were not adequately served by the traditional scheduled appointment model.

2. Materials and methods

2.1. Setting and patients

The Phyllis Jen Center for Primary Care at Brigham and Women's Hospital (PJC) is an urban, hospital-based primary care practice with approximately 100 primary care providers (PCPs), 64 of whom are residents, and three social workers (SWs), who treat approximately 16,000 patients, many of whom are medically complex and from low socioeconomic backgrounds. A psychiatrist is available on-site and has the capacity to see three initial evaluations (one-hour appointments) during each of three half-day sessions (a total of nine per week). This "embedded psychiatrist" typically evaluates patients who are referred for conditions that, once stable, PCPs can likely manage within their own clinic (including depression, anxiety, attention deficit hyperactivity disorder, posttraumatic stress disorder, and substance use disorders) in contrast to the hospital's psychiatry clinic, which encourages referrals for conditions more likely to require direct management by a psychiatrist over longer periods of time (including bipolar disorder, psychosis, personality disorders, and cases subjectively identified as likely to be complex). The embedded psychiatrist additionally sees patients who have complex psychiatric conditions but have been discharged from the psychiatry clinic due to recurrent missed appointments and have not successfully established care in the community despite receiving referrals for similar reasons–i.e., those who would otherwise receive direct management of their psychiatric conditions by their PCPs by default.

In the traditional model, all referrals were routed through a central psychiatric triage office that serves the entire Brigham and Women's Hospital system. Prior to the intervention, the average waiting time between the referral and this appointment was approximately two months, and the ratio of filled initial appointments to booked initial appointments was 59%.

2.2. Intervention

The psychiatrist's three half-day sessions were divided into a traditional clinic (Monday and Tuesday sessions) and a walk-in clinic (Friday session). We measured demographic and medical associations with missing an initial psychiatry appointment in the pre-intervention period and determined that a high risk of missing the appointment could be predicted by two or more no-shows documented in the electronic medical record (EHR) since automatic recording of missed appointments began on May 30, 2015. We expected the total number of missed appointments to increase across all patients as time passed from the launch date of our EHR (and therefore our predictive model would lose specificity). Appreciating that iterative changes are essential to sustaining quality improvement projects, we updated our referral system on April 18, 2016 to utilize percentage of missed appointments rather than total number because triage staff are able to easily view both total number and percentage of missed appointments for referred patients without disruption to their workflow. In the updated model, patients who missed greater than or equal to 20% of their medical appointments were referred to the walk-in clinic instead of those with an absolute number of missed appointments greater than or equal to two.

Psychiatric triage scheduled low-risk patients (i.e. those with zero or one prior no-show) for appointments as usual during a Monday or Tuesday session. When clinicians referred a high-risk patient for psychiatric evaluation, psychiatric triage staff forwarded the referral to the PJC social workers. The SWs maintained a list of these high-risk patients for referral to the walk-in session. This list was ordered chronologically from the time of referral, but the SWs could move patients with high acuity to the top of the list at their discretion. On the day prior to the walk-in session (Thursday), the SWs called the first ten patients on the list and asked them to come the next morning for a walk-in appointment. Included in this phone call was an explanation of the rationale for use of a walk-in model instead of a traditional scheduling model for psychiatric appointments and an explanation of how the clinic ran. The patients were informed that the walk-in clinic started at 9:30 AM, that they needed to arrive before 11:00 AM, and that they would be seen in the order they arrived until the clinic session ended at 12:30. Patients were advised that they may have to wait longer than usual for the appointment to start and that the appointment could not be guaranteed due to limited time and uncertain demand.

Patients who were referred to the walk-in clinic but did not arrive for the appointment remained on the list of referred patients. These patients could be re-referred if they or their clinician requested another appointment. The system was designed to be flexible and accommodating; therefore, there were no fixed rules regarding how quickly or how many times a patient could be re-referred, and if a patient required a non-Friday appointment he or she could be offered a scheduled appointment. Patients who indicated that they needed to be seen urgently could be invited to the next walk-in session as add-ons to the group of ten who had been systematically referred.

This intervention and the associated measurements were designed as a quality improvement project and therefore did not require approval by the Institutional Review Board (IRB) per Partners Healthcare IRB policy.

2.3. Measurements

PJC uses an EHR to track scheduled appointments, kept appointments, number and percentage of prior missed appointments, demographic information, and medical problem lists. We extracted these data exclusively from the EHR. Any demographic or medical information that was not listed in the EHR was excluded from our calculations. Clinic policy requires that patient appointments be removed from the EHR if the patient calls to cancel an appointment prior to the appointment starting time. Therefore we could not account for late cancellations in our measurements. If a patient never arrived for an appointment or called to cancel after the appointment starting time had passed, the appointment was marked as a no-show in the EHR.

Our hospital system began using a new EHR on May 30, 2015. The number and percentage of prior missed appointments recorded in the EHR reflected appointments made after implementation of the EHR. Appointments made prior to this date were not used in our calculation. Records of missed and kept appointments reflected activity in all outpatient settings within our hospital system (i.e., this did not reflect primary care or psychiatry appointments exclusively).

We defined filled appointments as the total number of patients seen for an initial psychiatry evaluation during each four-week measurement period. We defined booked appointments as the total number of appointments listed on the EHR schedule during the four week period. Each walk-in clinic session, which reserved 3 h of clinician time but did not use scheduled appointments, counted as three booked appointments for the purposes of our calculations. The total number of filled appointments for any session could be higher than three if more than three patients received an evaluation.