



Terminations in Primary Care: A Retrospective Observational Study of a Network of Primary Care Clinics in Eastern Massachusetts

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Scholarly Report submitted in partial fulfillment of the MD Degree at Harvard Medical School

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Scholarly Report Title: Terminations in Primary Care: A Retrospective Observational Study of a Network of Primary Care Clinics in Eastern Massachusetts

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ABSTRACT

Title: Terminations in Primary Care: A Retrospective Observational Study of a Network of Primary Care Clinics in Eastern Massachusetts

Purpose: To better understand the nature and extent of formal terminations of patients by their primary care doctors and/or clinics.

Methods: Patients terminated from primary care during a 4.5-year period were identified via three data sources, including logs kept by a centralized department and two different searches using the electronic health record (EHR). All cases were reviewed in the EHR; in situations where the patient was not terminated or there was insufficient documentation, they were excluded from analysis. From detailed chart review, we recorded details of the encounter including reasons for termination, whether opioids played a significant role, and a brief summary. We also extracted demographic data from the EHR and compared terminated patients to the study population using means and proportions.

Results: In total, we identified 536 terminations among 16 primary care clinics serving 150,456 patients. During the review period, 82% of PCPs dismissed 3 or fewer patients and the median number of dismissals by PCPs was 1; two PCPs accounted for 18% of terminations. Nearly half (45%) of all terminations occurred as a result of multiple “no-shows” or failures to cancel scheduled appointments with more than 24-hours’ notice. The second most common reason cited for terminating a patient was for disrespectful or otherwise disruptive behavior (22% of dismissals). Retired or disabled patients had a higher likelihood of dismissal (OR: 3.27; 95% CI: 2.58-4.14) compared to those employed full-time, as did unemployed patients (OR: 3.61; 95% CI: 2.84-4.58). Compared to White/Caucasian patients, Black/African American patients were more likely to be terminated (OR: 2.92; 95% CI: 2.38-3.60).

Conclusions: While patients were terminated from all clinics during the study period, there was great variability among both clinics and providers. The most common reason for dismissal was missed appointments, followed by inappropriate/disrespectful behavior. Patients in certain demographic groups were terminated at a higher rate compared to the entire study population.

GLOSSARY OF ABBREVIATIONS

PCP	Primary care provider
PBRN	Practice-based research network
AHRQ	Agency for Healthcare Research and Quality
EHR	Electronic health record
PFR	Patient and Family Relations (centralized department within the PBRN)
OR	Odds ratio
CI	Confidence interval

SECTION 1: INTRODUCTION

The relationship between clinician and patient is the cornerstone of primary care. Ongoing, positive relationship continuity is an important contributor to and outcome of high-quality primary care. Breakdown and termination of the therapeutic relationship thus represents an undesirable occurrence. Unfortunately, on occasion, primary care providers (PCPs) and clinics who face challenging patient-provider relationships resort to terminating patients^{1,2,3,4,5}. This practice -- often referred to as “firing” patients -- is a source of distress for patients, providers, and practices, and warrants efforts to better understand and prevent such breakdowns^{6,7,8,9,10}. Given the often disruptive and stressful circumstances that patient terminations represent, better understanding their occurrence and root causes may prove valuable for mitigating and preventing the harm and friction from which they stem.

The majority of published literature on patient terminations has focused on medicolegal and/or ethical concerns. Medical societies and journals’ opinion sections have published legal recommendations and guidelines providing advice on steps to follow in the process of termination to protect both the doctor and the patient^{11,12,13,14,15,16,17}. There is general agreement that, legally, any doctor may dismiss any patient for nearly any non-discriminatory reason, but there are certain steps that should be taken to protect the patient or safeguard against clinician liability for “abandonment”^{18,19,20}. Various ethical perspectives articulated have been more controversial; some writers feel that terminations should only be used as a last resort^{21,22,23,24,25}.

In several previous studies, surveys were sent to primary care doctors or their practice administrators to explore this topic^{1,2,3,4,5}. Without exception, these surveys reported that patients were most commonly terminated from primary care due to inappropriate, abusive, or threatening behavior^{1,2,3,4,5}. The few qualitative studies that have been done have shown that there is often a disconnect between providers’ and patients’ experiences with the dismissal process, and that more research is needed to understand where and how these relationships break down^{6,7,8,9,26}.

The aim of this study was to better understand the nature and extent of formal provider and patient-initiated termination of the primary care relationship, documentation and communication related to such terminations, and, where possible, follow-up to establish a new primary care

provider after termination. In so doing, we also sought to glean insights that may help others address similarly problematic contexts in primary care.

SECTION 2: STUDENT ROLE

In the planning stage, I helped the team decide which data points should be collected manually and systematically from the chart/EMR, and helped strategically develop the methods for patient identification. I performed the literature review and created an annotated bibliography for use in writing up the results. During the data collection phase, I performed all chart reviews and entered the findings into the database. For analysis, I worked with the research manager/analyst to determine what tables and figures were needed. I made the figures and tables that did not require statistical analysis and updated as needed throughout the process. I wrote the first draft of the manuscript and have edited it extensively with feedback from members of the team.

SECTION 3: METHODS

Study setting and design

We performed a retrospective observational case-control study of patients whose primary care was formally terminated between January 2013 and June 2017. Study subjects received their care at clinics associated with a practice-based research network (PBRN), a consortium of physicians and primary care practices registered with the Agency for Healthcare Research and Quality (AHRQ), in Eastern Massachusetts. This PBRN includes 16 hospital-based clinics, community-based practices, and community health centers that all share a common data infrastructure and maintain a primary affiliation with the same teaching hospital. Briefly, we identified patients and collected and classified the reasons for and circumstances surrounding their termination using multiple sources described below. We also collected demographic data directly from their electronic health record (EHR). This study was approved by the Institutional Review Board for the PBRN.

Case Identification

Our outcome of interest was formal, documented termination of the primary care relationship by a PCP or primary care clinic. Lacking a comprehensive registry of patient terminations, we identified cases using three primary data sources: (a) logs maintained by a centralized Patient and Family Relations (PFR) department, (b) EHR-based “dismissal flags” assigned to patients by clinic managers, and (c) a free-text search for termination letters in the EHR.

PBRN clinics have the ability to engage the PFR to assist with the termination process. PFR allowed us to review their patient termination logs. Each log entry contained a dismissed patient’s name, medical record number, PCP name, primary care clinic, date of termination, and a brief summary of the interaction.

Practice administrators are also able to electronically “flag” patients in the EHR when they have been dismissed from the clinic. This triggers a pop-up that appears when this clinic’s schedulers open a dismissed patient’s chart, advising them not to schedule an appointment. To identify patients with this flag, we queried the enterprise data warehouse for our EHR.

Additionally, we searched the EHR for any documents uploaded by primary care staff whose subject included the phrase “termination,” “dismissal,” or “discharge.” Termination letters not already associated with a patient encounter in our study were then reviewed to determine if they referred to dismissals from primary care, rather than from other clinical practices or different circumstances altogether, such as discharge from the hospital. Patients terminated more than once from different PCPs during the review period were recorded as unique cases.

Data Collection

For all patients identified via one or more of the above three methods, a 4th year medical student (AG) performed detailed chart review; any ambiguous cases or those for which AG had questions were also reviewed by an experienced primary care clinician specializing in healthcare quality research (GS). If corroborating evidence was not found in the chart (i.e., a lack of documentation regarding termination or documentation that the patient was not terminated), the patient was marked as “No evidence of termination” or “Patient was not terminated” and excluded from the study.

We stored all data in a Microsoft Access database and performed data entry using a standardized form with pre-set, drop-down fields and a free-text box for the chart reviewer to summarize the termination process and paste free-text excerpts from PFR log entries, termination letters, and clinical encounter notes. Data collected to detail a patient termination included patient name, primary care clinic, date of termination, PCP, role of clinic staff member involved in conflict, and reasons for termination.

We also assessed the adequacy of documentation by recording whether the patient's chart included (1) any notes from the clinic, (2) clear documentation of a conflict, (3) clear documentation of the reason for termination, and/or (4) documentation of the patient being informed of the termination in-person.

If clinical encounter note(s) written immediately prior to termination referenced a disagreement between the patient and provider regarding opioids, termination due to violation of an opioid contract, or forgery of an opioid prescription, we further classified the termination as opioid-related. Additionally, if there was documentation that the patient established primary care with a new PCP after a termination, we recorded whether the new clinician worked within or outside of the same health system. When in-network, we also recorded the date of the first appointment with a new PCP if this occurred within 6 months of termination.

In addition to chart review, we extracted the following demographic data from the EHR: patient age, sex, race or ethnic origin, primary language, highest level of educational attainment, relationship status, employment status, and insurance status. These data were initially self-reported by patients upon registration at the clinic and may not have been updated over time.

Statistical Analysis

We compared demographic variables using means and proportions. Using logistic regression, we estimated the probability of termination based on patient demographic factors. We modeled age by decade and used generalized estimating equations to account for patient-level clustering. For all statistical analyses, we used SAS (version 9.4, SAS Institute, Cary, NC) and considered P values < 0.05 statistically significant.

SECTION 4: RESULTS

Overall, we identified 158,192 patients who received primary care from 182 PCPs across 16 clinics during our review period (Table 1). Patients had a mean age of 50 (standard deviation (SD) = 19) and 62% were female. Most patients (60%) were White/Caucasian, 10% were Black/African American, 18% were Hispanic/Latinx, 4% were Asian/Pacific Islander, and 8% were of unknown race or ethnic origin. The majority of patients had private insurance (83%) and spoke English as a primary language (87%). Nearly half of all patients had at least a college degree (48%), were married/had a life partner (49%), and had full-time employment (42%).

In total, we identified 623 possible terminations using our three data sources; 47 (7.5%) cases lacked sufficient evidence of termination and 40 (6.4%) were not actually terminated. Our final sample of cases included 536 terminations (18 patients were terminated twice) conducted by 182 PCPs. PFR log entries identified 266 cases, EHR-based dismissal flags detected 300 cases, and 373 cases were associated with a Termination Letter stored in the patient's chart. There was significant overlap in cases detected (Figure 1), however, each method identified dozens of unique patients not otherwise captured by the other approaches.

There was no statistically significant difference in likelihood of termination based on patient sex (Table 1, $p = 0.12$). Younger patients were more likely to be terminated than older patients (odds ratio (OR), 0.96 per decade; 95% Confidence Interval (CI): 0.93-0.99). Retired or disabled patients had a higher likelihood of dismissal (OR: 3.27; 95% CI: 2.58-4.14) compared to those employed full-time, as did unemployed patients (OR: 3.61; 95% CI: 2.84-4.58). Compared to White/Caucasian patients, Black/African American patients were more likely to be terminated (OR: 2.92; 95% CI: 2.38-3.60) while Asian/Pacific Islander patients were less likely (OR: 0.39; 95% CI: 0.18-0.86). Patients who did not speak English were less likely to be terminated (OR: 0.53; 95% CI: 0.36-0.78).

During the review period, 82% of PCPs ($n=148$) dismissed 3 or fewer patients. The median number of dismissals was 1 (interquartile range (IQR): 1-3 patients). Two PCPs accounted for 18% of terminations (48 and 49 dismissals, respectively). Clinics ranged in terminations from 4 cases per 10,000 patients to 119 cases per 10,000 patients during the review period (Figure 2; median=25 per 10,000; IQR=16-44 per 10,000).

Reasons for Termination

Nearly half (45%) of all terminations occurred as a result of “No shows” or missed initial appointments (Table 2). A no-show was usually defined as the failure to cancel a scheduled appointment or a cancellation within 24 hours of the appointment. Some PCPs and clinics observed a strict policy of dismissal following three no-shows. In most cases, we were unable to independently determine the number of appointments missed because the EHR does not reliably retain missed or cancelled appointments. Four clinics each terminated more than 45 per 10,000 patients for no-shows during the study period while the other fourteen sites ranged from 0 to 14 per 10,000 patients.

The second most common reason cited for terminating a patient was “disrespectful/disruptive behavior” (24% of dismissals). In these cases, the chart documented the event(s) in which the patient acted inappropriately and/or noted that they were being dismissed for this reason. The interaction(s) leading to termination varied; at times they involved the physician and at other times involved administrative staff, nursing, and/or social work. Among these cases, 29% were opioid-related. Although we anticipated the possibility that physicians may have needed to terminate patients acting in a sexually threatening or harassing manner, our chart review revealed only a single instance of termination due to sexually inappropriate behavior.

A substantial number of patients (17%) were labeled in PFR log entries and/or termination letters as a “self-termination.” This term is distinct from patients’ not-infrequent choice to leave a practice or provider. In cases labeled “self-termination,” termination letters or other chart documentation explicitly stated that the patient is not permitted to return to the clinic because they said they no longer wished to be cared for by the doctor and/or practice. Like patients terminated for other reasons, these patients received termination letters outlining the terms of their dismissal and were expected to find a new provider within a specified (usually 30-day) period. This was also the case for terminations explicitly described in PFR log entries as a “mutual decision.” By contrast, when patients decided to leave a practice without being formally dismissed for “self-termination,” they did not experience such limits and were able to return if they wished.

The remaining reasons for termination included breaking an opioid contract previously signed by the patient (4%); illegal behavior (2%), such as writing/changing a prescription or forging a doctor's signature on a letter; and "noncompliance" with an established medical plan (2%).

Overall, at the time of chart review, 202 (37.6%) cases had documentation of a new PCP within the network, 133 (24.8%) with a new PCP outside of the health system, and 201 (37.5%) had no documentation of a new PCP. Among patients who established care with a new PCP in the PBRN, 134 (66.3%) had a primary care visit within 6 months.

SECTION 5: DISCUSSION, LIMITATIONS, CONCLUSIONS, AND SUGGESTIONS FOR FUTURE WORK

Discussion and Suggestions for Future Work

To our knowledge, this is the first study to use detailed chart review, EHR-based dismissal flags, or PFR log entries to investigate the reasons for and circumstances surrounding the practice of patient terminations in primary care. Based on this approach, we found that terminations did not occur evenly across clinics or providers. In fact, 232 of the dismissals (43% of all cases) took place at just two of the clinics. These sites appear to have lower thresholds for terminating primary care due to stricter "no-show" policies.

Prior studies that explored this topic used surveys to determine the number and reasons for terminations from primary care^{1,2,3,4,5} and midwifery²⁷. Most of these surveys queried providers about the number of patients they had dismissed over varying time periods; two studies reported that 85 and 90% of PCPs had ever terminated patients^{1,2}. Our study found that most PCPs had terminated 1 patient within the review period. While surveys offer useful insights regarding when and why terminations take place, they are susceptible to both recall and social desirability bias. This may lead to underreporting the number of patients terminated and/or over-reporting more socially acceptable reasons for termination such as violence or threats to staff. By performing chart reviews, we attempted to diminish the impact of these biases and obtain real world data on actual terminations, though it is possible that social desirability bias may continue to play a role in chart documentation.

We found that, contrary to prior survey-based studies' findings, nearly half of all patients in this study were terminated due to "no-shows." Several of the clinics appeared to follow a strict "three strikes" policy. Although no-shows accounted for the significant plurality of patient terminations, they also had the least amount of supporting documentation in the chart. In most cases, it was not possible to determine the underlying causes leading to these missed appointments.

The remaining half of terminations fell under the more visible umbrella that may be described as a breakdown in the relationship between patient and provider. This deterioration of the relationship often culminated in "bad behavior" such as disrespectful treatment of staff, contentious non-compliance (e.g., violation of an opioid contract), and/or disagreement/arguments over the care plan leading a patient to state they no longer wanted to be seen by the provider (resulting in receipt of a termination letter in the mail).

Notably, patient terminations were not equitably distributed among demographic groups examined. African American/Black patients were far more likely to be terminated compared to Caucasian/White patients. Patients who were retired, unemployed, had a disability – arguably among those most likely to face challenges to healthcare access, including transportation barriers – were most likely to have their care terminated. Patients on Medicare, Medicaid, and lacking insurance were also nearly twice to four times more likely to be dismissed than those with private insurance. These distinctions are concerning and point to yet another area where inequity is evident in health care.

In contrast, while the opioid epidemic has been well-documented for its devastating increase in morbidity and mortality in nearly every community and is a well-known source of conflict between clinicians and patients requesting opioids, the impression that this is the leading issue causing terminations is not supported by our data.

Overall, formal patient terminations are relatively rare; this study found that approximately 8 in 10,000 patients were terminated per year across the 16 primary care clinics studied. However, the results indicate that there may be room to improve support for patients and physicians to prevent the circumstances that lead to termination. For example, further investigation of "no-shows" may elucidate the reasons for which patients frequently miss appointments and identify

driving factors for clinic variation in adherence to the no-show termination policy. This may also shed light on what may be done to better assist patients in attending their scheduled appointments and communicating cancellations in a timely manner if they are unable to attend. Patient perspectives should be sought to understand the barriers to punctual arrival and communication when they are unable to attend appointments, as well as their side of the story in cases of termination due to “inappropriate behavior.”

Conclusions

These findings provide insight into the practice of patient termination from primary care, an area that has been infrequently and incompletely studied. Our detailed chart review found that, unlike previous survey-based studies, the most common reason for dismissal was missed appointments in the context of strict no-show policies at some clinics. We also found that patients in certain demographic groups were terminated at a higher rate compared to the entire study population. The difference in findings between this study and others in this field and the variability within and among practices highlight the need for further research to better understand the circumstances leading up to patient terminations, with the principal goals of improving patient-provider relationships and providing equitable care.

SECTION 6: ACKNOWLEDGMENTS

Thanks are due to all members of the team, each of who significantly contributed to this study and without whom this work would not have been possible. To Gordy Schiff, who supervised, thought big, and was always enthusiastic and encouraging. To Harry Reyes, who reeled us back in, did all the number-crunching, and whose manuscript edits were critical. To Adam Wright, who obtained access to the EHR whenever needed and helped clarify our thinking. And to Elise Ruan, who did the first review of a sample set of patients before the project even had a clear direction. Thanks also to the administration at PFR who provided us with their log of patients and supported this project.

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TABLES AND FIGURES

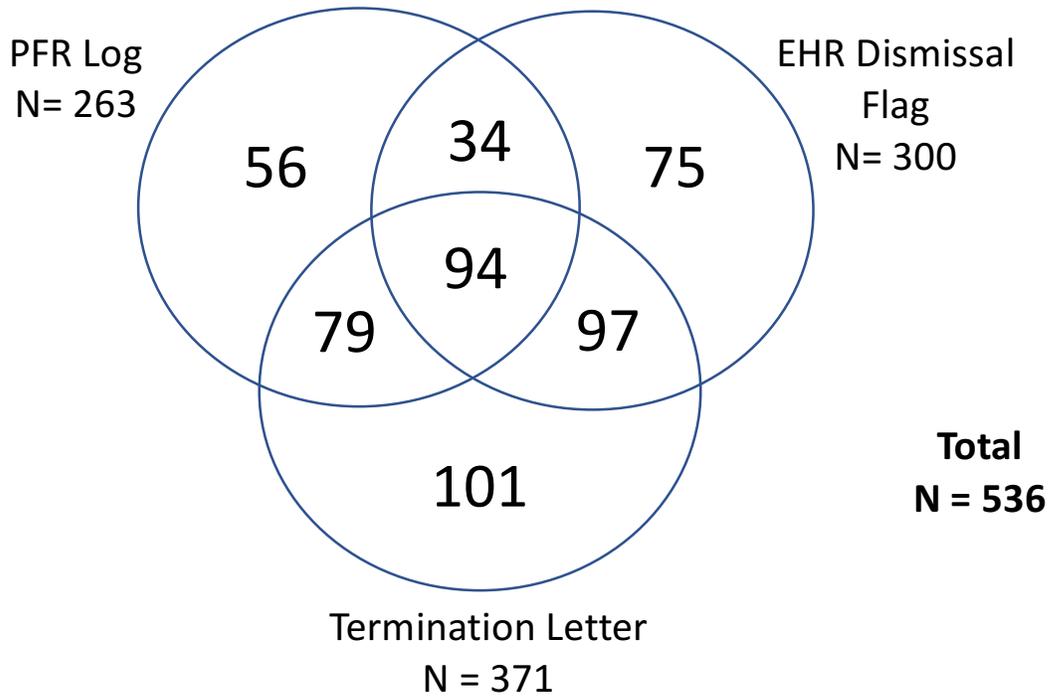
Table 1. Characteristics of primary care patients and estimated odds of termination

Characteristic	All Patients (N = 158,192)	Terminated Patients (N=536)	Patients Not Terminated (N=157,656)	Odds Ratio (95% CI)	P value
	<i>Mean (SD)</i>				
Age, years	50 (19)	49 (14)	50 (19)	0.96 (0.93-0.99)	0.02
	<i>N (%)</i>				
<i>Gender</i>					0.12
Men	59,564 (38)	220 (41)	59,344 (38)	Reference	
Female	98,628 (62)	316 (59)	98,312 (62)	0.87 (0.73-1.03)	
<i>Race or ethnic origin</i>					<0.001
White, Caucasian	94,287 (60)	278 (52)	94,009 (60)	Reference	
Black, African American	16,448 (10)	141 (26)	16,307 (10)	2.92 (2.38-3.60)	
Hispanic, Latinx	28,094 (18)	72 (13)	28,022 (18)	0.87 (0.66-1.14)	
Asian, Pacific Islander	6,875 (4)	8 (1)	6,867 (4)	0.39 (0.18-0.86)	
Unknown	12,488 (8)	37 (7)	12,451 (8)		
<i>Language</i>					<0.001
English	137,959 (87)	492 (92)	137,467 (87)	Reference	
Other	17,413 (11)	33 (6)	17,380 (11)	0.53 (0.36-0.78)	
Unknown	2,820 (2)	11 (2)	2,809 (2)		
<i>Educational Attainment</i>					<0.001
College or Higher	75,939 (48)	165 (31)	75,774 (48)	Reference	
High School Diploma	33,763 (21)	222 (41)	33,541 (21)	3.04 (2.47-3.74)	
Didn't Complete HS	8,896 (6)	45 (8)	8,851 (6)	2.33 (1.67-3.27)	
Unknown	39,594 (25)	104 (19)	39,490 (25)		
<i>Relationship Status</i>					<0.001
Married/Life Partner	77,176 (49)	146 (27)	77,030 (49)	Reference	
Single/Widowed	66,177 (42)	304 (57)	65,873 (42)	2.43 (1.98-2.99)	
Divorced/Separated	9,234 (6)	73 (14)	9,161 (6)	4.20 (3.15-5.61)	
Unknown	5,559 (4)	13 (2)	5,546 (4)		
<i>Employment Status</i>					<0.001
Full-time	65,929 (42)	132 (25)	65,797 (42)	Reference	
Part-time	6,979 (4)	20 (4)	6,959 (4)	1.43 (0.90-2.29)	
Retired or Disabled	21,657 (14)	141 (26)	21,516 (14)	3.27 (2.58-4.14)	
Unemployed	19,359 (12)	139 (26)	19,220 (12)	3.61 (2.84-4.58)	
Student	7,267 (5)	4 (1)	7,263 (5)	0.28 (0.10-0.74)	
Unknown	37,001 (23)	100 (19)	36,901 (23)		
<i>Insurance Status</i>					<0.001
Private	131,274 (83)	379 (71)	130,895 (83)	Reference	
Medicare	17,044 (11)	91 (17)	16,953 (11)	1.85 (1.46-2.35)	
Medicaid	9,197 (6)	58 (11)	9,139 (6)	2.19 (1.65-2.92)	
Uninsured	628 (0)	8 (1)	620 (0)	4.46 (2.20-9.02)	
Unknown	49 (0)	0 (0)	49 (0)		

Table 2. Reasons for Termination (N=536)

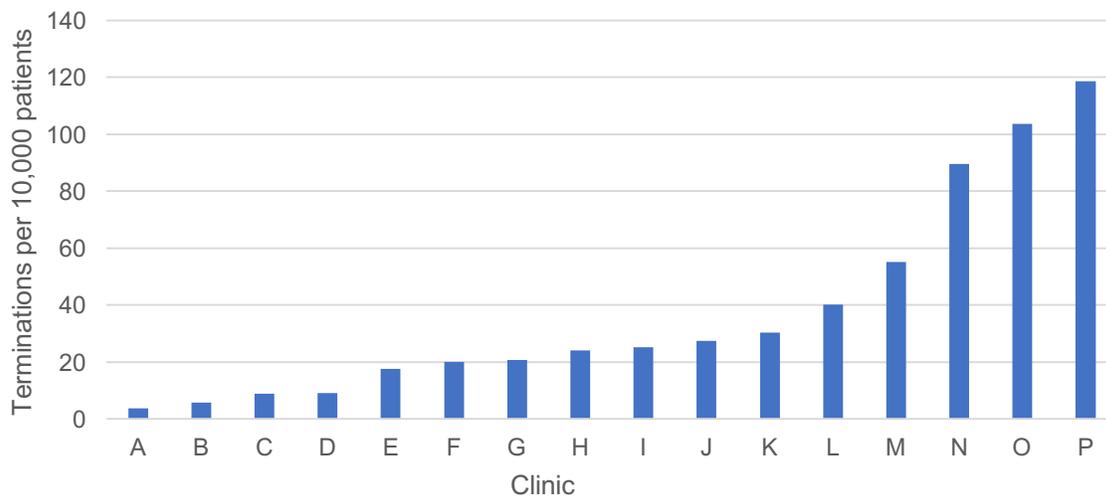
Reason for Termination	N (%)
No shows (missed multiple or initial appointment)	243 (45)
Behavioral Issues (e.g. inappropriate, threatening, abusive)	118 (22)
Self-termination / Mutual decision	78 (15)
Violation of opioid contract / Inappropriate demands	23 (4)
Patient dissatisfaction / Disagreement about care plan	22 (4)
Inability to contact patient	15 (3)
Nonadherence / noncompliance	16 (3)
Illegal behavior (e.g. forged rx script)	9 (2)
Breakdown/lack of therapeutic relationship	7 (1)
Patient moved out of area	3 (1)
Patient concurrently seeing another PCP	2 (0)

Figure 1. Case identification



Venn diagram with number of patient terminations identified using each of the three sources.

Figure 2. Terminations per 10,000 patients by clinic



Number of terminations per 10,000 patients during the study period from each of the 16 clinics.