Decreasing Missed Appointments at a Community Health Center: A Community Collaborative Project

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Abstract

Introduction: Missed appointments are a problem for health care systems, causing lost revenue and concern for poor health outcomes. This is particularly true at Community Health Centers (CHCs), where clients may already face substantial barriers to optimal care and outcomes. Identified solutions to this problem are limited, and often focus on reminder calls and messages to clients. **Methods:** This project utilized a unique academic/CHC collaboration to investigate and initiate solutions to their high missed appointment rates. Client phone calls to determine clinic specific needs, monthly team meetings to brainstorm and choose initiatives, engaging stake holders, and phased implementation were the tools used to address the high missed appointment rates within the limitations of the clinic resources available. **Results:** Within one quarter, missed appointment rates at the clinic dropped by 6%-17% for different appointment types. **Conclusion:** While the project was interrupted due to the pandemic, early outcomes were promising and the model may be helpful to other CHCs with similar concerns.

Keywords

community based participatory research, community organization, college/community partnership, access to health care

Introduction

Community Health Centers (CHCs) serve as the primary medical home for more than 20 million people, many low-income and under-insured, across both rural and urban communities in the US.[1] Missed appointments are a problem that plague CHCs across the country, resulting in suboptimal utilization of valuable client appointments, lost revenue for the clinic, and risk for poorer health outcomes.[2]

Concern regarding missed appointments is not a new phenomenon and the reasons for missed appointments are recognized as complex and multifactorial. The literature indicates that reasons for missing an appointment are frequently related to forgetting, family commitments, or transportation issues.[3] However, individual sociodemographic factors such as age, low socioeconomic status, health status, and type of health insurance appear to be risk factors for consistently missing appointments, while aspects related to client/clinic interaction are also important.[2,4]

While efforts to address the issue of missed appointments are extensive, solutions have been identified with only limited success. Ride shares or other forms of free transportation options to clinic appointments have not consistently demonstrated improvement in missed appointment rates.[5,6] Appointment reminders such as text messages and/or phone call reminders appear to be the most common initiatives and can improve adherence to scheduled appointments.[7] While appointment reminders can have wide reach and positive impact, they do not account for the other contextual factors that can impact appointment adherence such as health status, age, need for child care, and interaction/relationship with clinic staff.[8]

This report will highlight the process, initial outcomes, and challenges of a quality improvement project designed to reduce missed appointments.

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Methods

The CHC is situated in an urban location where it serves a large population of East African immigrants. There are nine primary health providers, three behavioral health providers, and four dental providers. In 2020, there were 11 620 clients served at the clinic with 75% of those being adults between the ages of 18 and 64. Seventy percent of clients are identified as racial or ethnic minorities. Many clients have low-income, with 43% at or below 100% of federal poverty guideline and 75% at or below 200% of federal poverty guideline. Twenty-eight percent of the population served in 2020 was uninsured. The clinic offers a sliding fee scale for its services, which include medical, mental health and dental care, as well as enabling services such as case management, health risk reduction, and outreach. Noting a high missed appointment rate despite some implementation of reminder calls and text messaging, the CHC determined a need for a comprehensive approach to address the problem. This project was initiated by an outgoing board member of the CHC with support of clinic administration and medical staff. Additionally, a local university, with a long history of partnership with the clinic, supported the work with a grant-funded faculty and student team. IRB exemption was granted through St. Catherine University as a quality improvement project.

Phase I: Review of Clinic Logistics and Client Needs

In order to best understand the particular needs of the CHC, clients who missed appointments were called and interviewed and logistical information from their charts was reviewed.

Two students were trained to call clinic clients who had missed an appointment the day prior and ask why they missed their appointment. One caller was fluent in Somali and was able to speak to clients in their primary language as needed. 362 calls were made, with 144 contacts made. Non-contacts included disconnected numbers or unanswered phone calls. The most common reasons given for missing an appointment were: forgetting, no reminder call/message, no insurance, or the interpreter told them they weren't available. Few people noted transportation or childcare issues.

Schedule review of missed appointments revealed that ancillary (ie, mammography, physical therapy) or routine appointments (ie, follow-up or well-visits) were more likely to be missed than appointments for a specific or acute illness concern. Early morning and early afternoon appointments were also more likely to be missed. Most clients missed less than 25% of their appointments. But clients who missed appointments consistently often missed 75% of their appointments. Chart reviews corroborated that those who had recently lost insurance coverage and those with

miscommunication through interpreters frequently didn't come to scheduled appointments.

Phase II: Possible Solutions

Collaborative meetings with the project initiator, clinic medical director, clinic staff, and faculty/student teams occurred monthly from October 2019 to March 2020.

In December of 2019, clinic interpreters were invited to a lunch session to share their ideas on how to reduce missed appointments for their clients. Their suggestions focused on increasing their access to patients prior to the scheduled appointments. Specifically, they requested patient contact information be sent to interpreters with notification of appointment and the ability to modify client appointments after communication. This would allow them clear and direct communication with the client and the insight to know if an appointment time would work well for them. Finally, they encouraged medical providers to develop deeper relationships with time for clients to share their stories. They exemplified one provider at the clinic who had strong relationships with non-English speaking clients who rarely had missed appointments on her schedule.

In addition to suggestions from the interpreters, the group brainstormed possible solutions based on the client phone calls, as well as from a literature review of best practices conducted by the students. Changes to clinic processes were suggested and agreed upon by the group. Changes that were initiated immediately included: sending client information to interpreters to allow communication prior to visit, allowing interpreters to modify appointments with patient consent, and scheduling follow up appointments in-visit by Medical Assistants with providers present for specific patient diagnostic groups (hypertension and diabetes) to emphasize the importance of chronic disease management.

Changes that were planned for the future with improved staffing included re-instating same day reminder calls, use of a reminder call script to target clients with high rates of missed appointments, and creating a process to proactively assist clients with noted insurance coverage lapse.

Results

Although many initiatives were only in the early stages at the end of 2019, initial outcomes were positive. From the beginning of 2019 to the end of the year, the no-show rate for appointments dropped from 23% to 17% (medical appointments), 26% to 19% (dental appointments), and 35% to 20% (behavioral health appointments).

While some initiatives were adopted immediately, most were planned for staged implementation due to feasibility with staffing. A second round of client calls to investigate missed appointments was planned for March 2020 to determine if implemented changes had made an impact.

These calls and further implementation were halted with the onset of the COVID-19 pandemic.

Discussion and Conclusions

Improvements were noted in missed appointments during the final quarter of 2019 with only modest process changes. The literature indicates that the missed appointment rate may drop moderately with targeted interventions.[7] This is consistent with the early results of this project. Unfortunately, the pandemic interrupted the final phases of this work.

As evidenced by client phone calls and interpreter input, missed appointments at this clinic frequently centered around miscommunication with clients, particularly those who required interpreter services. Additionally, clients were more likely to miss follow-up appointments rather than those for an acute medical need, perhaps further demonstrating a miscommunication and misunderstanding on the importance of follow-up for chronic disease management. This is substantiated by the literature which suggests lower health literacy is associated with clients being less likely to present for care, especially early in the illness, as well as other poorer health outcomes.[9]

There is limited literature that focuses on the client perspective regarding why they miss appointments. One study from an urban family practice clinic in Nebraska demonstrated that clients felt fear and anxiety about appointments, did not feel respected by providers and didn't understand the scheduling system.[10] These issues are alluded in this project to by the session with clinic interpreters who advised increased time and energy be spent with clients for them to feel heard and to develop meaningful relationships with providers. These outcomes suggest a need to restructure the approach to health care visits to improve both client/provider relationships and health literacy in order address the issue of missed appointments in a more durable and sustainable manner. Future studies could focus on such a systems-change approach with examination of both the short and long term impact on missed appointments.

There are a number of limitations of this project. Because the project was ended prematurely, follow up phone calls to clients were not implemented. This would have provided the necessary client perspective on the impact of the initiatives. Additionally, long term outcomes of the initiatives could not be collected, due to resources being shifted to COVID-19 responses and staffing changes. As many clinics experience and address the issue of missed appointments, the strength of this project was not so much about the interventions chosen, but the approach taken to determine the ideal initiatives to address missed appointments for the clients at this clinic.

This project was approached by a unique combination of community, academic, and clinic partners, all with the goal to improve the client experience and outcomes at the CHC. The contribution of many perspectives led to rich discussion and generated creative ideas for the clinic to adopt. This approach, as much as the interventions, can be used as a playbook for other CHCs to use in addressing the complex issue of missed appointments or similar challenges.

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