Health Center Oral Health Promising Practice

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Scheduling to Increase Treatment Plan Completion Rates

Organization:
Clinica Family Health Services, Denver, CO

One Sentence Description:
A quality improvement tool was used to implement a new scheduling template, with the goal of increasing treatment plan completion rates.

Summary:

Background:
At Clinica, we have been working on quality and process improvement work for decades, mostly related to our award-winning medical care. However, our dental department is relatively new; we opened our doors in 2002. For the first eight years of the program, the small dental department staff, one dentist and one dental hygienist, cared for approximately 2,500 patients per year, but struggled to emphasize continuity of care as the demand for care far outweighed capacity. Outcomes were less than ideal, treatment plans were left unfinished, and the clinic often felt like a “revolving door.” Given the success of our medical colleagues in improving patient outcomes when care continuity was present, we decided that our dental program should engage in similar work. Knowing that we had to rely on data as the driver for improvement, we adopted a metric called the “Treatment Plan Completion Rate.” Simply stated, the treatment plan completion rate is a measure of the percentage of patients who have completed their treatment plan, created at either a comprehensive or periodic exam, within six months of its creation.

In order to track the new metric, we created a dummy code in the electronic dental record (EDR). The code is to be marked at the visit the treatment plan is completed. Next, we relied on our strategic support team to develop a report that would track the data. Finally, we trained our staff to know when to complete the code in the EDR. Once these three steps were in place, we were able to measure our baseline, showing us exactly where we were with regards to our patients completing their treatment plans. The first six months of baseline data were terrible. In 2010-2011, our treatment plan completion rates ranged from 0-13% (refer to Figure 1).
After these initial findings, we identified the problems contributing to low treatment plan completion rates. The first problem was that a patient was never assigned to a single dentist. To change this inconsistency, a simple assignment of a primary dental provider (PDP) was noted in the EDR. This easy operational change ensured that a patient would see the same provider for every visit, creating continuity in the doctor-patient relationships to promote compliance and improved outcomes.

Methods:
To identify additional barriers to increased completion rates, we engaged the entire dental team in discussion and feedback. The most common and loudly heard frustrations involved our scheduling procedures. At that time, our scheduling paradigm was largely prescriptive, leaving “carved out” time for various procedures. When a particular appointment type that a patient needed was unavailable, the reception staff were instructed to tell the patient to call back and check for availability. It is not surprising that many of the patients never made it back to our Health Center. The “revolving door” problem mentioned earlier also resulted from the scheduling system; if the patient demand for procedures did not match which appointment types we had available, the reception staff filled those open appointments with more new and acute care patients. These two factors certainly played a large role in our poor treatment completion rates.

Though we worked on other areas to help improve the treatment completion rate, certainly the biggest project was to improve our scheduling process. We developed a new scheduling template that eliminated procedure “carve outs” and implemented a process where patients’ treatment needs dictated which procedures appeared on the schedule. Though this new schedule template was much more patient-centric and treatment complete-friendly, it was not without problems.

The first iteration of the new schedule was unpredictable and complex to implement. We received justifiable concerns from our clinical teams regarding the potential for scheduling errors that would make our patient care time chaotic. However, we were able to establish buy-in from the team by using a quality improvement tool called the Plan-Do-Study-Act, or PSDA Cycle: trying small scale changes and asking for routine feedback on the impact of those changes. It took more than 5 iterations of the cycle to develop the final scheduling template that has now been in place for the last year. The incremental changes made during the PSDA process were small:

1) Scheduling of appointments based on available assistant type (e.g. experienced expanded duty dental assistant (EDDA) had different appointments scheduled compared to dental assistants), to ensure that all team members could work to the top of their licenses.
2) Grouping of planned treatments into simplified event types in order to reduce errors in scheduling and allow for greater flexibility when scheduling appointments.
3) Increasing the amount of time a provider can see patients by 20 minutes, while still ensuring that support staff can have the clinic clean and leave on time at the end of the day.
4) Creating a functional triaging flow to ensure that patients were scheduled for proper appointments (e.g. ensuring that emergency patients are in fact emergencies).
5) Applying advanced access principles to ensure some same day access for patients needing/wanting to be seen the same day.

Each of these changes was put into place, one at a time, for about a month, and was tweaked as
necessary during each given cycle to ensure that final implementation of the process would be successful. These PDSA cycles highlight that while transition takes time, continually implementing small changes can lead to big improvements.

Regular check-ins with both providers and staff during the PDSA cycles gave them the opportunity to voice their opinions and concerns about the new processes, and allowed us to address any potential issues quickly. It also gave us the opportunity to coach the team through difficulties that inevitably arose, and the support we were able to provide was key to creating buy-in to continually administer the new template and to try new projects.

**Results:**
After implementing the new scheduling template, we have seen significant, extraordinary improvement in our treatment plan completion rates. With every change that we made, we were able to watch how it changed our outcomes, and we are now nearly reaching our lofty goal of 75% of treatment plans completed within 6 months (refer to Figure 2).

**Figure 2**

![Completion of Dental Treatment Plan (within 6 Months)](image)

**Conclusion:**
This process brought to light four keys that we can use to drive future success involving change:
1. Data is an essential part of how we improve quality and outcomes. However, having data is not enough; the use of data must be well planned. We know that what gets measured is what gets worked on, and success with specific targets in mind requires the acquisition and use of the correct measurements.
2. Data and measurement drive behavior. By engaging the entire dental team in the process, the team learned the value of data and is now asking for more and more. As a result, we routinely monitor our data and act accordingly.
3. Using effective quality improvement tools, in this case PDSA cycles, can make the daunting task of identifying how to implement a change process more approachable.
4. Focus on fixing the problem rather than playing the blame game. Take the time to understand what is happening, and ultimately, take the time to celebrate successes.

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