Reducing Oral Conscious Sedation Appointment Cancellations at A Community Health Center

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INTRODUCTION

Dental caries has been identified as one of the top infectious diseases in children worldwide and remains prevalent in children of low socioeconomic status and families from underdeveloped countries(1). Dental caries has led to many potential complications which negatively affects children's quality of life through malnutrition, gastrointestinal disorders, difficulty sleeping, and missing school. Delays in care can result in needless pain and suffering, infection, loss of function, and increased healthcare costs. (2)

The goals of sedation in the pediatric patient are for diagnostic and therapeutic procedures as follows: to guard the patient's safety and welfare; to minimize physical discomfort and pain; to control anxiety, minimize psychological trauma, and maximize the potential for amnesia; to modify behavior and/or movement so as to allow the safe completion of the procedure; and to return the patient to a state in which discharge from medical/dental supervision is safe (3)

The cancellation rate has remained high at about fifty percent and this has been a concern affecting the experiences of pediatric dental residents and the productivity of the clinic. On an average, the clinic offers about twenty OCS appointments each month. Majority of the patients were covered by Medical, therefore each OCS appointment costs about $383 for each encounter. With the fifty percent cancellation rate, the clinic is losing about $3830 each month, that's about $45960 lost in revenue each year.

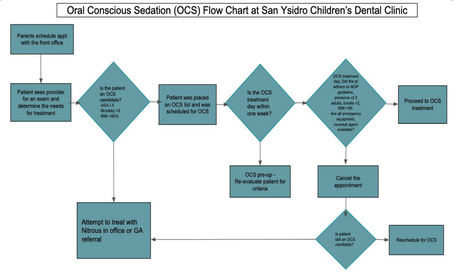
PURPOSE

The purpose of this quality improvement research project is to benefit San Ysidro Health, specifically to the Dental department, since reducing cancellations of appointments would help the organization maximize revenue and profit. Furthermore, this quality improvement research project helps increase the oral conscious sedation experience for NYU Langone pediatric dental residents specifically at San Ysidro Health's Children Dental Center.

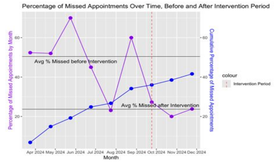
METHOD

- Data on oral conscious sedation (OCS) appointment cancellations at San Ysidro Children's Dental Center were collected for six months, from March 2024 to August 2024, to identify the reasons for cancellations utilizing the Pareto chart. (Graph #1)
- The top actionable reasons were chosen to target with telehealth call as an intervention plan, which were conducted at least two days prior to the OCS treatment. Run Chart was used to compare the cancellation rate between the pre and post intervention phase. (Graph #2)

FIGURE



Graph #2



Graph #1

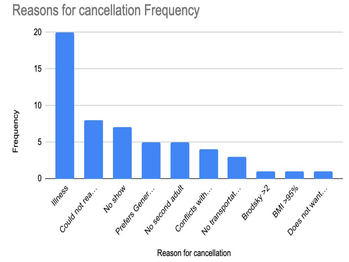


Table 1: Average % cancellation pre and post intervention

Phase	Average % cancellation
Pre-intervention	46.36%
Post-intervention	22.17%

RESULTS

- Illness was the top reason for oral conscious sedation appointment cancellation (36.36%), followed by "could not reach parents" (14.54%) and no show (12.72%). (Graph #1)
- Three actionable reasons were chosen to target for implementation plan; illness, no second adult (9.1%), and no transportation (5.45%). Telehealth calls were implemented for three months from September 2024 to November 2024, with 21 calls successfully completed and 7 unsuccessful calls due to being unable to reach the parents.
- The average percentage of cancellation during the pre-intervention period was 46.3% as compared to the post-intervention's cancellation rate of 22.17%. There was a **24.19% decrease** in the cancellation rate after implementation of the intervention plan for three months from September 2024 to November 2024. (Graph #2 and Table 1)

DISCUSSION

- This QI project will be performed only at San Ysidro Health's Dental Center and will be limited in scope. The results and intervention model of this study may be generalizable to the rest of the organization given the similar demographics of San Diego but not generalizable nationally or internationally.
- Intervention period was limited to three months and it does not allow enough time to generate a strong data set. Another limitation on this project is that data collection was collected by a single person that could cause some error due to inevitable human mistake.
- The SYHC dental clinic was moved from the Rady's Children Hospital main campus to the SYHC sister clinic in Chula Vista location at the end of April 2024. Therefore, the planned number of oral conscious sedation appointments in May were only ten scheduled due to the time of moving and setting up the clinic. Many patients were notified at the last minute of location change, and it could be the reason why the cancellation rate was highest in May.

CONCLUSIONS

This study suggests telehealth calls made a significant impact in reducing the appointment cancellation rates that open more access to pediatric dental care. Furthermore, the study helps pioneer a new platform of telehealth in dentistry at San Ysidro Health Center, where, in the future, dentists can provide emergency consultation to the patients through telehealth calls to prevent the treatment delays or burden on emergency rooms.

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