

# Factors Affecting Success of Oral Sedation Regimens

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## INTRODUCTION

Oral sedation (OS) has been utilized by pediatric dentists to provide dental care for more than four decades. It has been a core modality of pharmacological behavior management for children in the dental community due to its cost effective nature. On top of the increased cost-effectiveness, oral sedation is capable of benefiting both the patient and dental team by reducing stress and allowing for appropriate care to be completed. Despite the advancements over the years, it is still difficult to predict which oral sedation procedures will be effective.

## PURPOSE

The purpose of this study was to complete a retrospective analysis to identify which recorded factors from the AAPD sedation form can more accurately predict the success of an OS procedure, as compared to extrinsic factors.

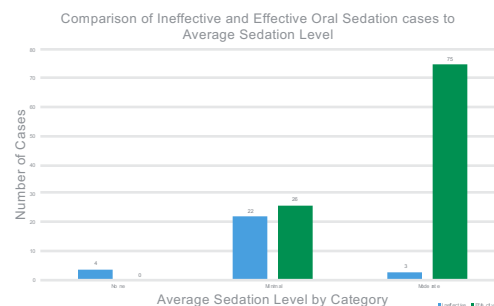
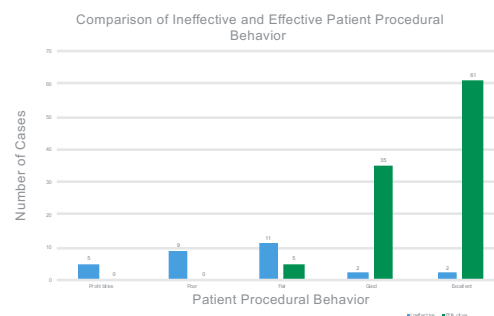
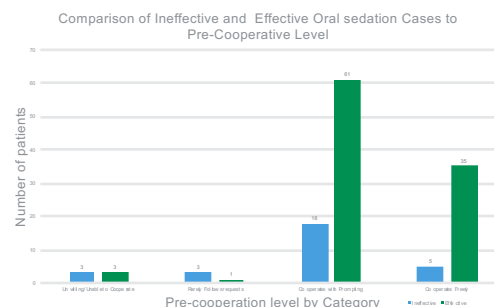
## METHOD

All subjects (130) ages 3 to twelve years of age, that met the selection criteria for oral sedation procedures at NYU Langone Hospitals affiliated health centers located in Casa Grande, AZ.

Each patient's chart and sedation record(s) were reviewed and the data points collected were: patient age, gender, BMI percentage, Frankl score at the pre-operative visit, average sedation level, patient procedural behavior, medications used with associated dosages, and whether or not the sedation procedure was effective.

Statistical analyses of the sample population utilized a two sample t-test for effectiveness and ineffective in regards to patient age, BMI %, and medication dose. A Fisher's exact test was utilized to compare the ASL, pre-operative Frankl score, and PPB to effective and ineffective procedures. Lastly, a chi-squared test was used to compare the patients' gender and age to effective and ineffective outcomes.

## FIGURE



## RESULTS

- The average age of the population examined was 5.66 years
- The average BMI percentage was 50.40% for the total population
- Average dose of Demerol was 1.82 mg/kg, for Hydroxyzine 1.15 mg/kg, and 0.70 mg/kg for Midazolam
- A patient's pre-operative Frankl score was shown to have no correlation to the effectiveness of a procedure, but the median pre-operative Frankl score of effective outcomes was a Frankl 2.
- Pre-sedation cooperation level was shown to have a strong positive correlation to the effectiveness of procedural outcomes ( $P = 0.011$ ).
- The average sedation level and patient procedural behavior both showed a significant positive correlation to an effective outcome ( $P < 0.001$  for both).

## CONCLUSIONS

- A patient's pre-cooperation level may be used as an aid for predicting whether or not an oral sedation procedure will be successful, before any medicine is consumed.
- Pediatric dentists that perform oral sedation may benefit from putting an emphasis on a patient's cooperation level for radiographs, exams, and drinking medicine as a predictor for successful outcomes.

## REFERENCES

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