Parent Demographics and the Acceptance of the Protective Stabilization Board

SAINT LOUIS UNIVERSITY
CENTER FOR ADVANCED DENTAL EDUCATION

SSMHealth Cardinal Glennon Children's Hospital

Introduction

The use of the protective stabilization board is a controversial topic in dentistry due to the potential adverse effects on the child, specifically considering the advancements in pharmacological behavior management techniques that can be provided today. According to AAPD guidelines, indications for use of the protective stabilization board are emergent diagnosis and/or limited treatment, urgent care with a child who makes uncontrolled movements, or uncooperative patients requiring limited treatment when oral conscious sedation or general anesthesia are not an option (1). Advanced behavior techniques such as oral conscious sedation and general anesthesia are well known; however, there are both risks and benefits to each treatment modality. Additionally, wait times for oral conscious sedation and general anesthesia tend to be long. However, the use of protective stabilization can be thought of as traumatic for some parents and children.

There are many factors that can influence parental knowledge and acceptance of protective stabilization. Some of which include language, ethnicity, socio-economic status, and parental age. In one study of the Northern Indian population, parents living in rural areas preferred protective stabilization over sedation and general anesthesia (2). Multiple factors can come in to play when treatment planning and discussing with parents which technique would benefit their child the most.

Purpose

The goal of this research is to determine if parent demographics play a role in the acceptance of the use of protective stabilization with their child.

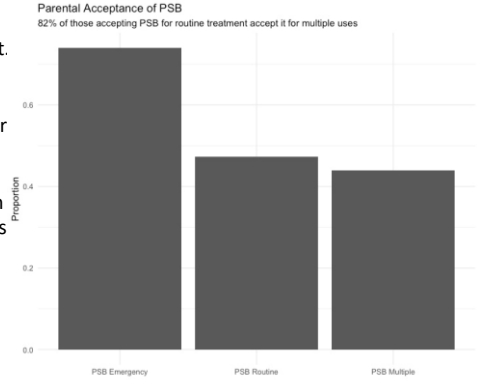
Research question: Do parental demographics affect the acceptance of protective stabilization?
Hypothesis: Parent demographics can affect the acceptance of use of protective stabilization board for dental treatment.

Methods

One hundred and fifty parents of children ages 0-7 years old participated in this study. A questionnaire was provided to parents within SLU CADE Pediatric Dental Clinic. The study was conducted from December 2023 to February 2024. Parents were given a recruitment statement and questionnaire form to help provide information regarding the parent's demographics and their view on the utilization of the papoose board with their child for dental treatment. The recruitment statement and survey were distributed to the parent on arrival of their child's comprehensive or periodic exam. Parents of healthy (ASA I or II) children ages 0-7 years old were included. Parents of special needs or medically complex children were excluded. Parents' primary spoke language was English. Demographic questions pertaining to parent age, gender, ethnicity, religion, highest level of education, annual household income, type of dental insurance, number of children in the household, and their familiarity with protective stabilization boards were evaluated. Questions pertaining to the parents comfort using the papoose board for their child in different clinical circumstances, including use of the papoose board accomplishing routine dental treatment if their child was moving and upset during a dental appointment, if they required multiple appointments for routine dental treatment visits, and if emergency dental treatment was required. In addition, questions about parent acceptance of other behavior management techniques such as with parent/assistant holding child, nitrous oxide, oral conscious sedation, and general anesthesia in routine and emergency dental care were assessed.

Results

A chi-squared test for equality of proportions was performed on each grouping of variables without a multiple testing adjustment. There were not statistically significant results found for parent demographics. Statistically significant results were: In routine use: the proportion agreeing to protective PSB who were familiar with PSB (42/64 65.6%) versus those who were unfamiliar with PSB (28/83 33.7%) ($\chi2 = 12.73$, df = 1, p = .0004). In multiple routine use among those agreeing to routine use: the proportion agreeing to PSB who were familiar with PSB (29/40 72.5%) versus those who were unfamiliar with PSB (25/26 92.6%) ($\chi2 = 4.44$, df = 1, p = .035) In emergency use: the proportion agreeing to PSB who were familiar with PSB (58/65 89.2%) versus those who were unfamiliar with PSB (52/85 62.4%) ($\chi2 = 12.46$ df = 1, p = .0004).



Questionnaire

13. If your child was moving and upset during a dental appointment, in order to accomplish **ROUTINE dental treatment (cleanings, x-rays, fillings or crowns when the child is not in pain)**, would you find it acceptable to use a papoose board?
    - Yes
    - No

    If Yes, would you find it acceptable to use a papoose board for **MULTIPLE ROUTINE dental treatment (cleanings, x-rays, fillings or crowns when the child is not in pain)** appointments?
    - Yes
    - No
    - N/A

14. If your child was moving and upset during a dental appointment, in order to accomplish **EMERGENY dental care (when the child has an abscess or is in pain)**, would you find it acceptable to use a papoose board?
    - Yes
    - No

Conclusion

In this study, parent demographics did not affect the acceptance of PSB utilization. Parents were more likely to accept routine single use and emergency use of PSB. Parents were be less likely to accept treatment with PSB for multiple routine uses if they were familiar with it.

References

1. American Academy of Pediatric Dentistry. Behavior guidance for the pediatric dental patient. The Reference Manual of Pediatric Dentistry. Chicago, Ill.: American Academy of Pediatric Dentistry; 2022:321-39.
2. Jindal, A., Singhal, P., Namdev, R., Grewal, P., & Aggarwal, G. (2019). Parental acceptance of the advanced behavior management techniques in pediatric dentistry: A comparative study in North Indian population. *International Journal of Oral Health Sciences*, *9*(2), 67. https://doi.org/10.4103/ijohs.ijohs_30_17
3. Malik, P., Ferraz dos Santos, B., Girard, F., Hovey, R., & Bedos, C. (2021). Physical Constraint in Pediatric Dentistry: The Lived Experience of Parents. *JDR Clinical & Translational Research*, *7*(4), 238008442110419. https://doi.org/10.1177/23800844211041952
4. Martinez Mier, E. A., Walsh, C. R., Farah, C. C., Vinson, L. A., Soto-Rojas, A. E., & Jones, J. E. (2019). Acceptance of Behavior Guidance Techniques Used in Pediatric Dentistry by Parents From Diverse Backgrounds. *Clinical Pediatrics*, *58*(9), 977–984. https://doi.org/10.1177/0009922819845897
5. Theriot, A. L., Gomez, L., Chang, C., Badger, G. R., Herbert, A., Cardenas Vasquez, J. M., Cardenas, A. D., & Chiquet, B. T. (2019). Ethnic and language influence on parents' perception of paediatric behaviour management techniques. *International Journal of Paediatric Dentistry*, *29*(3), 301–309. https://doi.org/10.1111/ipd.12462
6. Wan Mokhtar, I., Syazana Mohd Suhaimi, A., Suryalis Ahmad, M., Hazwani Baharuddin, I., & Iryani Izzaty Andytan, N. (2019). The Papoose Board: Parents' Perceptions and Attitudes of Its Usage in Their Child's Dental Treatment. *Journal of Dentistry Indonesia*, *26*(3). https://doi.org/10.14693/jdi.v26i3.1038.