Access to Dental Care in Sickle Cell Anemia Patients in an Urban Hospital Setting

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Background

- It is estimated that Sickle Cell Anemia (SCA) affects approximately 100,000 Americans. Its incidence is especially profound in the African American community, affecting 1 in 365 births, and 1 in 13 Black children carry the Sickle Cell Trait1.[1]
- It is documented that there are barriers in access to healthcare for persons with SCA, specifically in comparison to individuals with genetic disorders such as hemophilia and cystic fibrosis. [2]
- Because most patients with SCA are on prophylactic penicillin therapy until at least the age of 5, caries risk in this population has been documented at a lower rate than their otherwise healthy peers. [3, 4]
- Despite the documented association between SCA and oral health, there is no good data to reflect whether this patient population experiences increased barriers to access to dental care.

Objective

- To determine if significant barriers exist between patients with SCA and access to dental care in the Children's National Hospital system, and to work with stakeholders to offer potential solutions to these barriers.

Methods

- After obtaining IRB approval, data was collected during routine Sickle Cell Anemia clinic visits at two different sites in the District of Columbia via parental questionnaire from July 2022 – November 2022.
- Domains included ability to access oral healthcare, previous access to oral healthcare, family attitudes toward oral healthcare, history of dental caries, history of dental fillings, and history of dental pain.
- Descriptive statistics were utilized to narrate attitudes and ability to access dental care. Simple quantitative statistics were utilized to describe disease prevalence.

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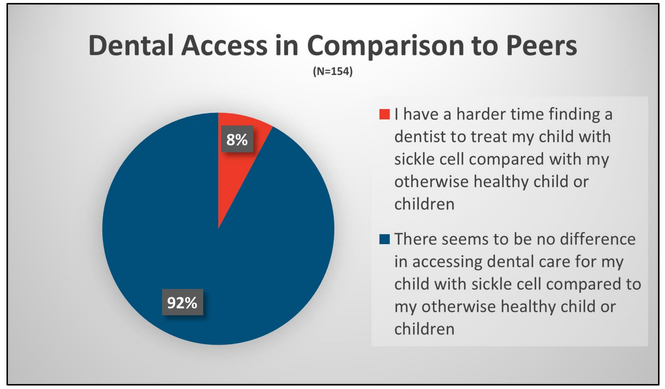
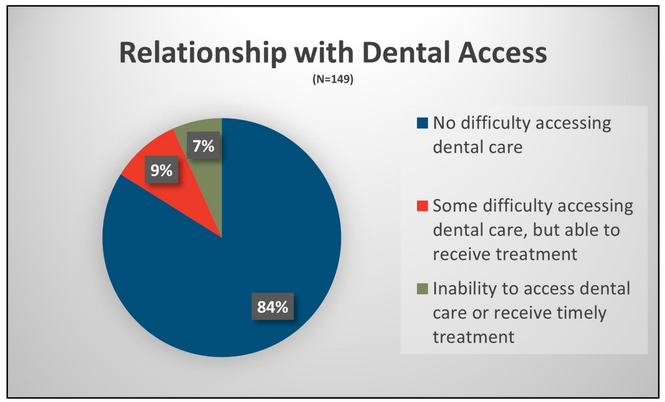
Results

- 154 patient responses were recorded. 45% of patients identified as female, 55% male. Ages ranged from 1 to 21 years.
- 22% of respondents (N=34) reported distaste for attending dental visits or only going to the dentist if absolutely necessary.
- 35% of respondents (N=52) report their child has been diagnosed with dental caries. 21% of these respondents (N=11) report no history of dental restorations.
- There was no significant difference between pre-adolescent (1-12y) and adolescent (13-21y) persons in accessing dental care. The adolescent group experienced a higher lifetime caries burden.





Discussion

- Due to the myriad of body systems that can be affected by sickle cell anemia and the chronic risk for vaso-occlusive crises necessitating complex management, patients with sickle cell anemia face many barriers to routine medical and dental care. These barriers are compounded by racial, socio-economic and geographic factors.
- The general feeling of hematologic providers prior to this study was that their patient population had a significant hardship in accessing routine dental care. This study was conducted at the request of the hematology team at Children's National Hospital to help elucidate whether their patients with SCA face significant barriers to dental care in this community.
- Although there are documented barriers in access to healthcare in persons with SCA, [2] the results of this study are very positive regarding this population's ability to access dental care. Subjectively, the majority of families have similar dental access to otherwise healthy peers.
- NHANES data from 2015-16 reported total dental caries in the US at 46% and untreated dental caries at 13%. This study population had a lower overall caries rate, but a higher rate of untreated decay compared to the national average.[5] More studies are needed to validate this data outside of the Children's National Hospital System.

Conclusions

1. Subjectively, the majority of families in the CNH SCA clinic have similar dental access to otherwise healthy peers.
2. This study population had a lower overall caries rate, but a higher rate of untreated decay compared to the national average.
3. This study highlights the importance of interdisciplinary care in patients with sickle cell anemia.

References

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