

Parental Concerns Regarding Positional Skull Deformities of Infancy

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Background

- Positional skull deformities (PSD) are characterized by symmetric (brachycephaly) or asymmetric (plagiocephaly) occipital flattening.¹
- PSD has been on the rise due to the introduction of the “back to sleep program”.³
- PSD is generally a cosmetic disorder, however perceived complications of the diagnosis and treatments (specifically helmet therapy) are speculated to create significant stress in parents.^{1,2}

Objectives

- To assess parental attitudes about the impact of PSD on their infants.
- To assess parental impressions about treatment of PSD, especially cranial orthoses.
- To assess the adequacy of education presented to parents by obstetricians and pediatric health care providers (HCP).
- To assess the types of PSD educational materials that parents would like to have available.

Methods

- A survey instrument was administered to a convenience sample of parents of infants affected by PSD. Parents were offered the survey at the beginning of their appointment at the clinic.
- It was conducted in a neurosurgery clinic at Nemours Children's Hospital; Orlando, FL, administered over a 3 month period.
- The survey consisted of 15 nominal, dichotomous (yes/no) and ordinal (Likert scale) questions and demographic questions.

Results

- 34 surveys were collected from the neurosurgical practice over 3 months, representing an 82% response rate. The sample was representative of the practice's population based upon demographics
- Mean age was months=6.29, *sd*=2.59, Median=5, 88% of infants were being seen for their 1st visit.
- Analyses done using SPSS v23.0 (IBM; Armonk, NY).

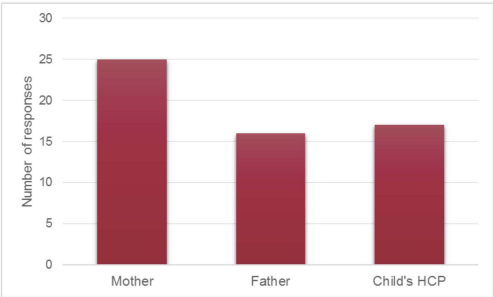


Figure 1: Who originally discovered the PSD

Results, cont.

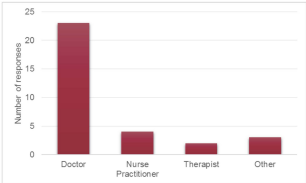


Figure 2: Type of HCP performing initial PSD evaluation

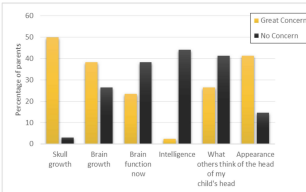


Figure 4: Parental concerns regarding PSD

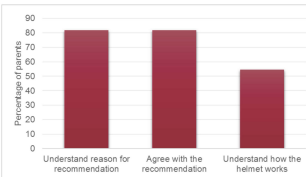


Figure 6: Parents who had been recommended helmet therapy, n=11

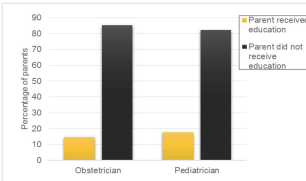


Figure 8: HCP Education regarding role of Back Sleeping in development of PSD

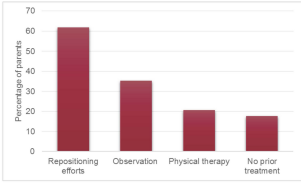


Figure 3: Previous treatment attempts by parents

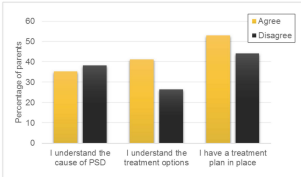


Figure 5: Parental understanding of PSD cause and treatment. Of the 53% of parents who had a treatment plan in place, 39% were not adequately educated to carry it out

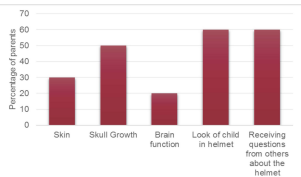


Figure 7: Parental concerns regarding helmet therapy, n=10

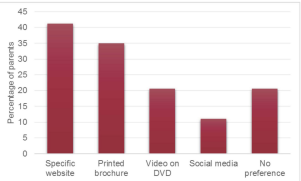


Figure 9: Preference for a specific information resource regarding PSD



Image 1: Top-down view of PSD (plagiocephaly)



Image 2: Infant in helmet therapy

Conclusion

- Parents harbor significant concerns in regards to PSD and helmet therapy.
- There is a paucity of education by obstetricians and pediatric about PSD and its treatment options.
- We recommend the creation of a web-based education campaign that provides clear and accurate information about the causes of PSD; their prevention and management; and outcomes.
- We will continue to administer this survey in the neurosurgery office for a longer period of time to obtain a larger sample size. We would also like to expand and incorporate a larger number of specialty and primary care offices.

Limitations

- A small sample size precluded our ability to do subgroup analyses and generalization of the results.
- Bias may have occurred since more severely affected infants are seen in neurosurgical clinics

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References

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