The South Texas Oral Health Network (STOHN) & The Tooth Fairy Project

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Introduction

The purpose of this new collaboration between the South Texas Oral Health Network (STOHN), the national Tooth Fairy Study, and the Hoffman Tilt Program was to collect deciduous control teeth as controls and increase knowledge and awareness of practitioners to grow their confidence in educating their patients about potential environmental exposure risks. This collaboration of medicine and dentistry provided emerging science to dental practitioners; an important process in engaging families in discussions about environmental exposures.

This local practice based research network, STOHN, was formed by a group of local practitioners and faculty who wished to be involved in research and were committed to improving clinical practice locally. The STOHN network is supported by the Institute of Integration of Medicine and Science (IIMS) at UTHealth SA, and a Clinical Translational Science Award from NIH. Goals of STOHN are to bring practitioners together to generate study ideas to answer important clinical questions. Key to PBRNs is that practitioners are involved at all stages of study development.

Significance

Neurodevelopmental disorders (ND), such as Autism Spectrum Disorder (ASD), affect 1-68 births. Previous studies show that awareness of exposure risk during pregnancy in South Texas is low. Therefore, it is important to increase provider knowledge and awareness to enable greater communication with their patients. Local practice based research networks in South Texas are important communities that potentially impact large numbers of patients. This study also engages practitioners in an on-going national study with minimal impact on their practice.

Approaches and Key Features

Training

- Human Subjects Projection Training is required as a precursor to study participation
- IRB requirements were fulfilled by the study team

Recruitment of Practitioners

- Continuous recruitment strategy was used for STOHN enrollment of pediatric and general practitioners
- Practitioners were invited to participate in the study by phone, email, and in person.

Implementation

- Practitioner study training consisted of awareness of environmental exposures and retention of chemical substances in deciduous teeth, and survey completion
- Practices were provided prepaid packaging to mothers for tooth donation

Enrollment of Patients

- Mothers of children with no diagnosis of ND invited to participate. They were asked to complete a survey of demographics, health history, and health during pregnancy
- Contact lists of interested mothers were generated for study coordinator contact
- Mothers were sent a personalized thank you letter from the Tooth Fairy for each tooth donation

Evaluation

- Successfully enrolled and retained 7 practitioners
- Received 18 completed surveys and approximately 30 deciduous control teeth
- Practitioners agreed 100% that participation increased their knowledge and awareness with clear, concise training manuals and high-quality materials
- Practitioners agreed 100% that participation improved their attitudes about talking with patients about environmental exposure and retention of environment chemicals in deciduous teeth

Conclusions

Practitioners were not only enthusiastic about discussing environment exposure with their patients, they made changes in what they purchased for their offices and homes based on their participation. Practitioners were also pleased to part of a national study.

The next step in this project would be to develop a study on knowledge, awareness, and determine the prevalence of neurodevelopmentally challenged patients in dental practices of South Texas.

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