Teeth for Two: Oral Health in Pregnancy and Early Childhood

Erin Hartnett, DNP, APRN-BC, CPNP1, Judith Haber, PhD, APRN, BC, FAAN1, April Hille, RN, MSN2
1Rory Meyers College of Nursing, New York University, New York, NY, 2Nurse Family Partnership, Health Choice Network of Florida, Miami, FL

Background

During pregnancy, changes occur in the oral cavity that may lead to oral disease. Poor oral health during pregnancy is associated with negative outcomes for mothers and their children.

Purpose

The purpose of this pilot project was to develop a standardized oral health curriculum to prepare Nurse Family Partnership (NFP) nurses to integrate oral health in home visits to high-risk, first time pregnant women and their children.

Design

Implementation: The Oral Health Nursing Education and Practice (OHNEP) Program trained NFP nurses in Miami, Florida about oral health during pregnancy and early childhood using Cavity Free Kids (CFK), an evidence-based toolkit for integrating oral health into home visits. NFP nurses used the CFK oral health toolkit during home visits with first-time pregnant women and first-time mothers of children ages 0-2.

Patients/Providers: 32 NFP Nurses attended the oral health training and 42 NFP Miami clients agreed to participate. Only the 4 Miami NFP Nurses whose clients participated in the analysis were included in the sample. 27 out of 42 clients (64%) were included in the analysis because they completed the survey at all three points in time.

Measurements: Nurses and clients completed surveys (baseline, 30 and 90 days) to measure changes in oral health knowledge and practices. The nurse survey was self-administered through a web-based survey, and the client survey telephone-administered by trained interviewers. For the client data, changes across the three points in time were tested for statistical significance using a paired sample t-test.

Nurse Results

Percentage of Miami NFP Nurses Currently Incorporating Oral Health for Pregnant Women into Home Visits (N=4)

- Baseline: 75%
- 30-Day Follow-Up: 100%
- 90-Day Follow-Up: 100%

Percentage of Miami NFP Nurses Currently Incorporating Oral Health for 0-2 Year Olds into Home Visits (N=4)

- Baseline: 75%
- 30-Day Follow-Up: 100%
- 90-Day Follow-Up: 100%

Percentage of Miami NFP Nurses Who Always Discuss How to Prevent Cavities by Providing Oral Health Nutrition Advice for 0-2 Year Olds (N=4)

- Baseline: 25%
- 30-Day Follow-Up: 75%
- 90-Day Follow-Up: 100%

Client Results

Percentage of Clients Reporting That Their Nurse Home Visitor Gave Them Information About Oral Health (N=27)

- Baseline: 65%
- 30-Day Follow-Up: 70%
- 90-Day Follow-Up: 85%

Percentage of Clients Reporting That Their Nurse Home Visitor Spoke About How to Prevent Cavities (N=27)

- Baseline: 50%
- 30-Day Follow-Up: 82%
- 90-Day Follow-Up: 82%

Percentage of Clients Reporting Knowledge of Mouth, Gum, and Teeth Cleaning (N=27)

- Feel like I know enough about how to keep my mouth, gums, and teeth clean: 85%
- 30-Day Follow-Up: 85%
- 90-Day Follow-Up: 93%

- I have been given information on how to keep my baby’s mouth, gums, and teeth clean: 70%
- 30-Day Follow-Up: 70%
- 90-Day Follow-Up: 85%

Percentage of Clients Receiving Contact Information for Local Dentists (N=27)

- Baseline: 20%
- 30-Day Follow-Up: 44%
- 90-Day Follow-Up: 59%

Percentage of Miami NFP Nurses Currently Incorporating Oral Health for Pregnant Women into Home Visits (N=4)

- Baseline: 75%
- 30-Day Follow-Up: 100%
- 90-Day Follow-Up: 100%

Percentage of Miami NFP Nurses Currently Incorporating Oral Health for 0-2 Year Olds into Home Visits (N=4)

- Baseline: 75%
- 30-Day Follow-Up: 100%
- 90-Day Follow-Up: 100%

Percentage of Miami NFP Nurses Who Always Discuss How to Prevent Cavities by Providing Oral Health Nutrition Advice for 0-2 Year Olds (N=4)

- Baseline: 25%
- 30-Day Follow-Up: 75%
- 90-Day Follow-Up: 100%

Percentage of Clients Who are Cleaning Their Child’s Mouth Twice a Day (N=27)

- Baseline: 35%
- 30-Day Follow-Up: 58%
- 90-Day Follow-Up: 71%

Conclusions

Following the intervention, there was an increase in the number of nurses including oral health content in their home visits. There was also a statistiically significant increase in the number of clients reporting that they have received oral health education and referral. Limitations to this study include small sample size and potential for recall bias. Including oral health in NFP home visit curriculum is an effective way to positively influence the oral health self-care and child care practices of high risk pregnant women and children.

Policy Implications

Including oral health in the National Nurse Family Partnership home visiting framework and other similar home visiting frameworks could help address the Healthy People 2020 Child and Adolescent Oral Health Goals. NFP nurses meet with each first-time mom in 64 planned home visits until the child reaches two years of age, when the majority of primary teeth should have erupted. They are well suited to provide the parental education needed to reduce the number of dental caries children experience in their primary teeth. The main barrier to this is finding a place to include oral health in an already jam-packed curriculum. Increased awareness of the burden of oral disease in the United States and greater funding are needed to ensure that oral health becomes a standard component of the home visiting framework.