Oral Health- A Window to Overall Health

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BACKGROUND
- According to American Academy of Pediatric Dentistry, tooth decay is the most common chronic childhood disease.
- According to Community Needs Assessment (2017), in Cincinnati, 17.2% of children had a toothache and 23% had dental caries.
- African American children (11.1%) were more likely to have a toothache than Hispanic (9.6%) or Non-Hispanic, white children (7.6%).
- Toothache and cavities were reported highest among the 6-12-year-old children and children enrolled in Medicaid or Children’s Health Insurance Program (CHIP).
- In Cincinnati Public School District (CPS)
  - Dental problems were the second most prevalent chronic condition among these students.
  - More than half of the population among the CPS district are African Americans and Hispanics.
  - 81.9% of students are economically disadvantaged, making these students a high risk population for oral diseases.

RESEARCH AIM
- Aim: To investigate the effectiveness of oral health education program on oral health knowledge, attitude and behaviors among children who are at a higher risk for oral diseases.

DESIGN and METHODS
Targeted Population: 4th grade students in Elementary school within CPS.
Design: A four week oral health lesson plan was developed and implemented from 24th September 2019 to 15th October 2019.

RESULTS

<table>
<thead>
<tr>
<th>Variables</th>
<th>Pretest scores</th>
<th>Posttest scores</th>
<th>P value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total overall score</td>
<td>66.67%</td>
<td>79.33%</td>
<td>0.0024</td>
</tr>
<tr>
<td>Knowledge of duration of brushing</td>
<td>69.23%</td>
<td>100.00%</td>
<td>&lt;0.0001</td>
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<tr>
<td>Knowledge of importance of flossing</td>
<td>46.15%</td>
<td>76.92%</td>
<td>0.1573</td>
</tr>
<tr>
<td>Attitude towards brushing and flossing</td>
<td>69.23%</td>
<td>76.92%</td>
<td>0.6547</td>
</tr>
<tr>
<td>Attitude towards effect of sugary food</td>
<td>84.16%</td>
<td>100.00%</td>
<td>&lt;0.0001</td>
</tr>
</tbody>
</table>

Week 1
- Pre test assessment
- Effects of poor oral health
- Oral health and overall health

Week 2
- Dental plaque and its effects
- Ways to prevent plaque build up
- Signs and symptoms of dental caries

Week 3
- Brushing technique
- Flossing technique
- Importance of brushing and flossing

Week 4
- Effect of sugary drinks on teeth
- Food choices for healthy teeth
- Post test assessment

• Measures of oral health knowledge, attitude and behavior were observed through questionnaires administrated both before and after oral health lessons.
• McMenar’s tests and paired t test were used to compare rates and means of outcome measures before and after oral health lessons.

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