The Oral Health Status of Children with Fetal Alcohol Spectrum Disorder

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Disclosure

None
Background

Oral health is an integral component of overall health
Background

• 85% of Canadians report that they have good oral health

• 75% have visited the dentist within the last year
Background

- Seniors
- Low-income populations
- Children
- Individuals with special needs
- Indigenous populations

Background

- Tooth decay is the most common chronic disease of childhood
  - 5x more common than asthma
  - 7x more common than seasonal allergies
- Pain/Infection
- Malnutrition
- Missed school days, poor performance
- Loss of sleep

Cassamassimo et al. JADA 2009
Background

• 2/3rds of all Canadian children ages 6 to 11 experience tooth decay

• 1 out of every 3 kids entering grade 1 have evidence of tooth decay (Saskatchewan)

• Leading cause of day surgery for children in Canada

Children with Disabilities

- The oral health and overall health needs of individuals with disabilities are complex
- Greater oral health needs
  - Oral hygiene
  - Tooth decay

Access to Care

Suppilty-side

- Transparency Outreach
  Information Screening
- Professional values, norms, culture and gender
- Location Accommodation
  Hours of opening Appointments
- Direct costs Indirect costs
  Opportunity costs
- Technical quality Adequacy
  Coordination and continuity

Approachability Acceptability
Availability & Accommodation Affordability
Appropriateness

Access to oral healthcare services

- Ability to perceive
- Ability to seek
- Ability to reach
- Ability to pay
- Ability to engage

Health literacy Health beliefs
Trust and expectations

- Personal and social values, culture, gender,
  autonomy, stigma
- Living environments Transport
  Mobility
- Income Assets Health insurance
  Social capital
- Empowerment Information
  Adherence Caregiver support

Levesque et al. International Journal for Equity in Health 2013
Access to Care

- Cost
- Location
- Provider knowledge
- Facilities
- Child behaviour
Children with FASD

- May have unique mix of challenges associated with access
- Overall oral health status is unknown
- Behaviour management may exacerbate the risk for extensive dental treatment under general anesthesia
Objective

This exploratory study seeks to understand the oral health status and treatment outcomes of children with FASD
Methods

• Retrospective chart review (2014-2018)
• 4 dental clinics operated by College of Dentistry
• Children under the age of 12
• Demographic and clinical data collected
• Descriptive statistics and logistic regression analysis
## Results

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Total n= 317 (100)</th>
<th>Control n = 254 (80.1)</th>
<th>FASD n = 38 (12.0)</th>
<th>Other Disabilities n = 25 (7.9)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Gender</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>159 (50.1)</td>
<td>129 (50.8)</td>
<td>21 (55.3)</td>
<td>9 (36.0)</td>
</tr>
<tr>
<td>Female</td>
<td>158 (49.8)</td>
<td>125 (49.2)</td>
<td>17 (44.7)</td>
<td>16 (64.0)</td>
</tr>
<tr>
<td><strong>Public insurance</strong></td>
<td>170 (53.6)</td>
<td>123 (48.4)</td>
<td>32 (84.2)</td>
<td>15 (60.0)</td>
</tr>
<tr>
<td><strong>Mean age</strong></td>
<td>8.33</td>
<td>8.34</td>
<td>8.37</td>
<td>8.20</td>
</tr>
<tr>
<td><strong>Mean deft (decayed, extracted, filled teeth)</strong></td>
<td>3.61</td>
<td>2.93</td>
<td>7.18</td>
<td>5.16</td>
</tr>
<tr>
<td><strong>Treatment with GA</strong></td>
<td>89 (28.1)</td>
<td>43 (16.9)</td>
<td>31 (81.2)</td>
<td>15 (60.0)</td>
</tr>
</tbody>
</table>
## Risk Factors Associated with GA

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Odds Ratio</th>
<th>SE</th>
<th>95% CI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>0.70 *</td>
<td>0.13</td>
<td>0.49 – 1.00</td>
</tr>
<tr>
<td>Public insurance</td>
<td>3.65 **</td>
<td>1.54</td>
<td>1.59 – 8.35</td>
</tr>
<tr>
<td>deft index (decayed, extracted, filled teeth)</td>
<td>1.97 ***</td>
<td>0.19</td>
<td>1.63 – 2.38</td>
</tr>
<tr>
<td>FASD</td>
<td>4.71 **</td>
<td>2.62</td>
<td>1.58 – 14.03</td>
</tr>
<tr>
<td>Other disabilities</td>
<td>5.19 **</td>
<td>3.05</td>
<td>1.64 – 16.43</td>
</tr>
<tr>
<td>Constant</td>
<td>0.02</td>
<td>0.02</td>
<td>0.01 – 0.08</td>
</tr>
</tbody>
</table>

*** P < 0.001; ** P < 0.001; * P <0.05
Discussion

- Children with FASD have a higher likelihood of requiring publicly funded dental programs.

- Children with FASD and those with other developmental disabilities have a higher level of tooth decay.

- Children with FASD are 4.71 times more likely to require costly treatment under GA.
Discussion

• What are the physical, behavioral, economic, and/or social barriers that limit access to care?

• Does the knowledge, attitudes and practice behaviors of oral health care providers towards impact the delivery of and access to oral health care?
Relevance

• What can be done to improve the resources available to oral health care providers and parents/caregivers related to the oral health of children with FASD?
Summary

• Early detection and prevention must be a focus for programs geared towards children with FASD

• Publicly funded dental programs need to improve in regards to preventive dental services offered
Thank You!

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