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Interventions to Improve Access and Health Behaviors in Individuals with Intellectual and Developmental Disability: A National Resource for Oral Health

Christine J. Clifford², MHP; Alexandra Bonardi², MHA, OTR/L; Cindy K. Fleming², MA

Background

People with intellectual or developmental disability (I/DD) are at risk for poor oral health, have a higher rate of caries and periodontal disease, and face more challenges in access to care than the general population. Practical barriers to oral health care for an individual include being unable to participate in personal hygiene, apprehension at a dental visit or unwillingness to cooperate. For providers, having limited training or exposure may result in resistance to treating individuals with I/DD. The aim of the review was to systemically evaluate interventions with the potential to reduce disparities in oral health for people with I/DD.

There exists limited evidence in the peer-reviewed literature; however, the gray literature (reports, newsletters, publications, theses) contained multiple examples of interventions that are well described, fully implemented, and have narrative description of good outcomes for adults with I/DD.

A Resource for Multiple Audiences

- **Providers/Clinicians:** Provides a body of literature to draw from that may be adaptable to their own practice or provider setting.
- **Researchers:** Provides resources pointing to interventions that have the potential to develop peer reviewed literature.
- **Caregivers:** Demonstrates care models that can be used in their own setting.
- **Individuals:** Provides self-advocates with the resources and guidance for taking control of their own oral health care.

Framework for Identifying Promising Practices

Recognizing that the results of the systematic review yielded limited evidence, the research team adapted a framework (Spencer et al.) that would recognize the impact of the reality of practices not recognized in the peer-reviewed literature.

### Promising Practices

<table>
<thead>
<tr>
<th>Topic</th>
<th>Evidence</th>
<th>Beyond the peer review literature</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Evidence/Behavior</strong></td>
<td>Behavior management techniques improve cooperation of individuals with I/DD in oral health care and treatment. Individual and caregiver education programs indicate improvement in oral health measures. Provider exposure to individuals with I/DD indicates increased likelihood to care for individuals.</td>
<td>Sensory Adapted Environments (SADE): individuals report feeling more relaxed; providers reported favorable feedback and no interference with work.</td>
</tr>
<tr>
<td>Sedation</td>
<td>Sedation (in various forms) considered safe &amp; effective with minimal side effects, and is a reasonable option for delivering/receiving oral health care in certain circumstances.</td>
<td>No promising practices identified beyond peer review.</td>
</tr>
<tr>
<td>Prevention</td>
<td>Use of Chlorhexidine (various forms) results in improved gingival index scores.</td>
<td>Specialized dental clinics that provide prevention</td>
</tr>
<tr>
<td>Access</td>
<td>A specialized program, that included a referral to a specialty dentist; a school based program, that brought the dentist to the school; and an analysis of managed care data indicated an increase in positive outcomes for individuals with I/DD.</td>
<td>Training programs for community dentists, mobile dental program</td>
</tr>
</tbody>
</table>

### Promising Practice Methodology

Relevant material that did not meet criteria for inclusion in systematic review was reviewed. The gray literature consisted of policy statements, white papers, other non-peer reviewed print, and online material (web sites). An Internet search for follow-up information was conducted to provide updated information. Interventions were sorted into the 4 categories from the systematic review. A ‘promising practice’ had fair or moderate evidence, limited outcome data, and more limited impact, but was reported to have good outcomes in some settings, or for some individuals.

For inclusion in the final promising practices document, the project’s Advisory Panel, consisting of dentists, hygienists, providers, self-advocates and others will review practices for inclusion and assess the degree to which the practice is assessed as effective in producing good outcomes.

Summary

The systematic review of the literature revealed a small but emerging body of evidence in the peer reviewed literature. The gray literature is a valuable source for emerging interventions, and a place to learn about those interventions that are considered effective by clinicians and their patients but the success has not been demonstrated with robust research. Synthesizing examples of promising practices with the best-available peer reviewed literature could serve as a model for synthesizing research and developing interventions in areas of need for the I/DD population, such as other health, wellness, or behavioral interventions.

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