Prevention for Special Care Patients

Adolescents and adults with special needs: to prevent or ... not to prevent?

Prof Dominique Declerck

DenStat Research Group, Department Oral Health Sciences, KU Leuven
Paediatric Dentistry & Special Dental Care, Univ Hospitals Leuven, Belgium
To prevent or ... not to prevent?

‘Open mouths’ can open eyes

Let’s face the problem

Wanted: PREVENTION
‘Open mouths’ can open eyes

☑ Oral health situation of adolescents and adults with special needs: what do we know?

Gabrielle – movie by Louise Archimbault
‘Open mouths’ can open eyes

✓ ‘Measuring is knowing’
✓ Available epidemiological data:
  ▪ Limited (number, region, age groups, type of disability, institutionalized, convenience samples ...)
  ▪ Representative? Generalisable?
  ▪ Comparison with ‘non-disabled’ peers often lacking
‘Open mouths’ can open eyes

- Most information available for persons with ‘INTELLECTUAL DISABILITY’
- Nature of oral health problems encountered is IDENTICAL to that seen in non-disabled persons
- But ... oral health condition is in general WORSE
‘Open mouths’ can open eyes

http://www.so2014.com/
‘Open mouths’ can open eyes
Oral health status of Belgian Special Olympics athletes

- Convenience sample of athletes participating in SO 2008
- Informed consent obtained from parents/legal guardians
- Brief interview (brushing habits, smoking, presence of pain)
- Intra-oral examination (25 trained dentists, internationally agreed Special Smiles oral screening protocol)
- Educational component (one-to-one instruction oral hygiene)
Oral health status of Belgian Special Olympics athletes

- 687 participants were screened (40% female)
- Mean age 33 yrs (SD: +/- 13; range: 9-80; 52% under 35 yrs old)
- 13% complaint of pain in the oral cavity
- 22% cavitated caries lesions (visual inspection)
- 12% signs of dental injury
- 12% referred for urgent and 27% for non-urgent dental care

Participants younger, healthier, less severe disability, better supported and integrated in society ‘Best case’ scenario, yet.... HUGE UNMET NEEDS

Belgian National Institute for Health & Disability Insurance (NIHDI) launched a pilot study to lay foundations of a policy towards better oral care for persons with special needs (PBN project) (frail older persons, individuals with disability)

- Collaboration between professional organisations and universities
- National epidemiological survey was undertaken in 2010

https://www.riziv.fgov.be/information/nl/studies/study56/.../study56.pdf; also available in french
National survey in Belgium

- Target population: individuals with disability between 21 and 65 yrs
- Two-stage sampling methodology
- Care settings included: residential settings, day care centres, sheltered workplaces
- Informed consent obtained from individual or parent/legal guardian
- Ethical approval of study protocol

National survey in Belgium

- oral health examination
  
  *(on premises, disposable mouth mirror and periodontal probe, head lamp, no radiographs)*

- caries experience \((D_3)\), oral hygiene *(Silness & Loë, simplified when necessary)*, periodontal health *(DPSI)*, prosthetic status

- 28 dentist-examiners, extensive training

- structured questionnaire
  
  *(oral health habits, dental attendance, access to oral care, subjective oral care needs)*

National survey in Belgium

- Sample: 707 persons, consent obtained in 656 (93%)
- Pain and complaints: 40% of participants stated they had a problem in the oral cavity
- Need of dental appointment (subjective need): 48% of subjects

Insufficient oral hygiene:
78% presented with visible plaque accumulation
68% presented with calculus

High caries experience, often untreated:

- 95% showed signs of caries experience (D₃MFT>0)
- 56% presented with untreated caries lesions (D₃>0)
  (Note: in age-matched Belgian population: 34% - National oral health data 2009)
- 64% had at least one missing tooth (M>0)
- 33% had 20 or less teeth
  (Note: in age-matched Belgian population: 16% - National oral health data 2009)

Oral health problems are not different, only their prevalence and severity is higher

Keep in mind!
Almost all oral health problems are preventable!

- Oral hygiene less good
- Higher prevalence and more severe periodontal problems
- Caries experience comparable, more untreated disease
- Higher number of missing teeth

National survey in Belgium

Study on (oral) healthcare utilization

- Data from Permanent Sample of Socially Insured Persons (Intermutualistic Agency, IMA)
- 260,000 Belgian residents, longitudinal data on healthcare utilization (only refundable care) (2002-2008)
- Subsample of 21-65 year olds
- Disability status based on proxy measures (medical recognition for integration compensation and/or allowance for third-party assistance)
- Ethical approval obtained
Study on (oral) healthcare utilization

- Data available from
  1,221 individuals with disabilities
  131,877 individuals without disabilities

Study on oral healthcare utilization

Data available from:
- 1,221 individuals with disabilities
- 131,877 individuals without disabilities

National survey in Belgium

Cumulative oral health-care utilization

<table>
<thead>
<tr>
<th>Period 2002-2008</th>
<th>NO disability n=131,877 (%)</th>
<th>Disability n=1221 (%)</th>
<th>P-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Contact with dentist</td>
<td>91</td>
<td>88</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>Regular contact with dentist*</td>
<td>45</td>
<td>42</td>
<td>0.046</td>
</tr>
<tr>
<td>Emergency dental treatment</td>
<td>46</td>
<td>49</td>
<td>0.044</td>
</tr>
<tr>
<td>Consult with oral surgeon</td>
<td>42</td>
<td>42</td>
<td>0.838</td>
</tr>
<tr>
<td>Intra-oral radiograph</td>
<td><strong>57</strong></td>
<td><strong>40</strong></td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>Preventive examination</td>
<td>25</td>
<td>22</td>
<td>0.004</td>
</tr>
<tr>
<td>Professional debridement</td>
<td>39</td>
<td>37</td>
<td>0.149</td>
</tr>
<tr>
<td>Restoration of one tooth surface</td>
<td><strong>36</strong></td>
<td><strong>29</strong></td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>Restoration of more than one tooth surface</td>
<td><strong>67</strong></td>
<td><strong>48</strong></td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>Endodontic treatment of permanent tooth</td>
<td><strong>27</strong></td>
<td><strong>17</strong></td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>Extractions and minor oral surgery</td>
<td>5</td>
<td>8</td>
<td></td>
</tr>
<tr>
<td>Partial removable denture</td>
<td>4</td>
<td>7</td>
<td></td>
</tr>
<tr>
<td>Full denture</td>
<td>3</td>
<td>5</td>
<td></td>
</tr>
</tbody>
</table>

Reimbursement schemes differ between groups

* At least one reimbursement registered in at least four of seven observation years
'Open mouths’ can open eyes

Is this situation unique for oral health?

- Health disparities between individuals with disabilities and the general population have been documented in SEVERAL AREAS
- Often UNRECOGNIZED and/or POORLY MANAGED medical conditions present
- Persons with disabilities do NOT receive adequate PREVENTIVE measures


Oral care identified as MOST PREVALENT UNMET HEALTH CARE NEED
DENTAL CARIES and PERIODONTAL DISEASE are among the most common secondary conditions affecting people with intellectual disabilities.

‘Open mouths’ can open eyes

To prevent or ... not to prevent?

‘Open mouths’ can open eyes

Let’s face the problem
Let’s face the problem

- Barriers for dental care encountered by
  - person with a disability
  - caregivers/family members
  - dentists/oral hygienists
PERSONS WITH DISABILITY (n=611):

✓ 42% reported barriers to consult a dentist
  ▪ Anxiety (37%)
  ▪ Financial implications (29%)
  ▪ Transportation problems (29%)
  ▪ No skilled dentist available (7%)

CAREGIVERS/FAMILY MEMBERS:

- Relevance of oral health for general health and overall well-being underestimated
- Dental treatment considered unpleasant/threatening for person with disability
- Difficulty in finding a (skilled) dentist
- Financial difficulties

https://www.riziv.fgov.be/information/nl/studies/study56/.../study56.pdf; also available in french
DENTISTS (n=494):

- Insufficient training for treatment of mentally disabled persons (34%)
- Lack of time (43%)
- Lack of cooperation of patients (60%); difficulties in communication with patients (58%)
- No chair-side assistance available (48%)
- Access to dental practice (10%); equipment non-appropriate (9%)
- Financial problems of patients (45%); insufficient remuneration of dentist (54%)

https://www.riziv.fgov.be/information/nl/studies/study56/.../study56.pdf; also available in French
The greatest opportunity to improve oral health for people with intellectual disabilities lies in the development of EFFECTIVE PREVENTION

>> Research needed for development of strategies
- encourage self-care
- improve daily hygiene procedures by care givers

Should become a public health PRIORITY
To prevent or ... not to prevent?

‘Open mouths’ can open eyes

Let’s face the problem

Wanted: PREVENTION
Barriers for oral hygiene acts reported by caregivers (n=551)

Behavioural aspects of individual with disability:
- Insufficient cooperation, brushing very difficult (22%)
- Person refuses completely, impossible to brush teeth (14%)

Psychological/emotional aspects of caregivers:
- Afraid of hurting subject (12%)
- Afraid of getting injured (biting) (5%)
- Dentition in poor condition, brushing not possible (3%)

https://www.riziv.fgov.be/information/nl/studies/study56/.../study56.pdf; also available in French
Barriers for oral hygiene acts reported by caregivers 
(n=551)

ORGANISATIONAL ASPECTS:
• Not enough time (12%)
• No appropriate material available (9%)

TRAINING OF CAREGIVERS:
• Insufficient training (9%)

https://www.riziv.fgov.be/information/nl/studies/study56/.../study56.pdf; also available in french
Barriers for preventive acts reported by dentists (n=551)

(% extremely difficult or impossible)

- Preventive instructions: 47%
- Professional cleaning: 37%
- Sealing: 34%
- Periodontal treatment: 52%

Least problems: tooth extraction ......

https://www.riziv.fgov.be/information/nl/studies/study56/.../study56.pdf; also available in french
Need for development of

- strategies to increase patient ACCEPTANCE of routine periodontal and restorative dental care
- strategies to ensure that dentists and hygienists are prepared to PROVIDE this type of care
- effective preventive strategies to MINIMIZE the need for this care