inspired

Behind this presentation is an idea that will improve oral health

Child oral health and the MCH Nurse

MAV MCH Conference - 22 May 2015

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oral health for better health
Overview

• Introduction
• Early Childhood Caries
• Lift the lip – identifying early signs of oral disease
• Emerging treatment practices
• How DHSV is supporting MCHN in their oral health promotion role
  – Tooth Packs research
  – Healthy Families, Healthy Smiles program update
Oral health in the early years

- Early childhood caries is a growing problem
- 47% of 5-6 year old children have decay
- Dental conditions are third highest cause of preventable hospital admissions for children <5 years of age
- >75% of children have not seen a dentist before they begin primary school.
Oral health and the KAS Framework

Health information:
- 8 mths - Tooth Tips 0-12 mths
- 12 mths - Tooth Tips 12-18 mths
- 18 mths – Tooth Tips 18 mths-6 yrs

Health and Development monitoring:
- Oral health - 8 mths, 18 mths, 3.5 yrs
- Breastfeeding – home visit, 4wks
- Healthy eating – 4mths, 12mths, 3.5 yrs
How healthy primary teeth contribute to overall oral health

• Premature loss of baby (deciduous) teeth may lead to crowding

• Untreated dental caries in the deciduous dentition may lead to:
  - Toothache
  - Infection
  - Dental phobia
  - Crowding
  - Caries on adjacent permanent teeth
  - Affect the developing permanent tooth

• If permanent tooth is congenitally missing need to maintain the baby tooth as long as possible.
Dental caries process

- Normal oral microflora stick to the teeth forming dental plaque.
- Increased consumption of fermentable carbohydrates favours bacteria that produce organic acids (acidogenic) and tolerate the resultant low pH (aciduric).
- Within just a few minutes of eating, or drinking, these microorganisms begin to produce organic acids (acid attack).
- These acids can penetrate into the hard substance of the tooth and dissolve some of the minerals (calcium and phosphate) – demineralisation.

Early Childhood Caries (ECC)

• Early Childhood Caries is a severe form of dental decay that affects the baby teeth of infants and young children.

• When milk (lactose) is allowed to pool over the deciduous teeth during sleep, it leads to ECC.

• Children with ECC need significant dental treatment and may require hospitalisation to have the treatment completed.

Ref:
Preventable hospital admission 2004-05

Figure 6: Dental ACSC admissions by age, 2004–05

Source: Victorian Admitted Episodes Dataset
Preventable hospital admissions 2014-15

Hospital admissions for dental conditions by age groups, 2013/14

Number of hospital admissions

Age


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Identifying ECC

A healthy mouth

First stages of decay

Early decay

Advanced decay
Lift the lip - detecting early signs of ECC
Advice for early prevention

Don’t put baby to sleep with a bottle
- Putting babies to sleep with a bottle can cause tooth decay.

From 6 months of age, your child can start to drink from a cup
- Babies can start to learn to drink from a cup around 6 months of age. After 12 months, children do not need bottles.

Clean your child’s teeth and gums as soon as the first tooth appears
- Children might not like having their teeth brushed at first.
- Use a wet cloth to wipe the teeth.
- Clean morning and night with a small soft toothbrush. Do not use toothpaste under 18 months of age.

Offer healthy foods every day and limit sweet foods
- Eating foods high in sugar can lead to tooth decay.
- If your child has a dummy, don’t put anything sweet on it.

Have your child’s teeth checked before 2 years of age

Refer to page 39 of the ‘Teeth Manual’ for more information.
Referral

- Public dental
  - Children 0–12 years are eligible to use public dental services
  - **Free** for children of parents with a health care card or pensioner concession card, everyone else pays small fee
  - DHSV offers these services across the state. To find a local clinic visit [dhsv.org.au](http://dhsv.org.au)
  - Enrol children in local public service.

- Private dentists
  - Some families may choose to see a private dentist

- Child Dental Benefit Schedule
  - available in public or private system.
Emerging practice for treatment of early childhood caries

Minimal Intervention Dentistry

Fig. 2.14  We want our patients to leave us in a happy frame of mind. (With thanks to David Myers and kind permission of Eden Bianchi Press.)

The five elements of MID

1. Identification of risk factors at the individual level
   - Caries Risk Assessment: extreme, high, moderate, low
2. Remineralisation (healing) of early non-cavitated active lesions
3. Implementation of individualised preventive strategies
4. Where appropriate repair (rather than replacement) of defective restorations
5. Where appropriate placement of restorations in teeth with cavitated lesions using minimal cavity designs.
Hall Technique

- A method that uses performed metal crown for sealing decay in deciduous molars
- It involves cementing the crown onto the tooth; without the use of local anaesthesia, caries removal, or crown reduction.
- Requires careful case selection (early to moderate size cavities).
### Clinical Trial of the Hall Technique
(Innes et al 2007 & 2011)

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</thead>
<tbody>
<tr>
<td>Child discomfort during procedure</td>
<td>‘No apparent’ to ‘mild’ 103 (78%)</td>
<td>118 (89%)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Significant, and unacceptable 6 (4.5%)</td>
<td>2 (1.5%)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Technique Preference</td>
<td></td>
<td>77% Children; 83% Carers; 81% Clinicians</td>
<td></td>
<td></td>
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<tr>
<td>Major Failure</td>
<td>19 (15%)</td>
<td>3 (2%) P&lt;0.000</td>
<td>21 (19%)</td>
<td>3 (3%) No New failures</td>
</tr>
<tr>
<td>Minor Failure</td>
<td>57 (46%)</td>
<td>6 (5%)</td>
<td>60 (56%)</td>
<td>7 (6%)</td>
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Hall Technique

• This approach tends to raise concerns amongst clinicians with respect to the following issues:
  – Sealing in caries with the possible outcome of pulpal necrosis and abscess formation
  – Increasing the patient’s occlusal vertical dimension
  – The possibility of impaction of erupting first permanent molars against the distal aspect of the PMC.
Victorian study results

• Clinicians reported
  – a much easier procedure to perform than conventional restorative techniques
  – positive behavior for all children who had HT crowns placed
• Children generally experienced low or no discomfort
• Comfort levels correlated with parent reports of child’s experience.
## Parent/carer acceptability

<table>
<thead>
<tr>
<th>THEMES</th>
<th>COMMENTS from questionnaire</th>
</tr>
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<tbody>
<tr>
<td>Pain Free</td>
<td>“pain free, mild amount of discomfort”</td>
</tr>
<tr>
<td>Quick and easy</td>
<td>“very quick to put on compared to filling this is good for little kids who don’t stay still for long”</td>
</tr>
<tr>
<td>No anaesthetic</td>
<td>“no need for weird numb feeling”</td>
</tr>
<tr>
<td>No drill</td>
<td>“because when he hears the noise of the &quot;machine&quot; he gets anxious”</td>
</tr>
<tr>
<td>Child can feel sense of achievement</td>
<td>“showed everyone proudly, very proud that she had achieved getting crown”</td>
</tr>
</tbody>
</table>
What did the children think...
Children’s response to care given

How do you feel about how we looked after you today?

Phase 2: Preliminary results
Children’s response to the Hall Technique

How did you feel when you had your silver tooth put on? Age standardised data

Phase 2: Preliminary results
Tooth Packs research

Adina Heilbrunn, Lauren Carpenter, Gillian Lang, Sue Kearney, Allison Ridge and Andrea de Silva.

Presented on behalf of Centre for Applied Oral Health Research, DHSV
Aims of pilot

1. Determine feasibility and acceptability of distribution of toothbrushes and toothpaste through MCH service

2. Explore impact of tooth-pack distribution on child and family oral health behaviours and knowledge.
Multi-component intervention

• Oral Health Promotion materials
  – including anticipatory guidance
• Mouth check
  – Screening for poor oral health
  – Referral for oral health care
• Oral hygiene products
  – Family packs containing age-appropriate toothbrushes and toothpaste
• Communities selected based on need e.g. indicators such as oral health status, SEIFA index, access to services.

A big THANK YOU to the MCH teams from these communities.
Oral health information resource

**Looking after your mouth, teeth & gums**

**Toothbrushing**
- For children 0 – 18 months of age:
  - Use a soft toothbrush without toothpaste.
- For children 18 months – 6 years of age:
  - Use a soft toothbrush with a pea-sized amount of fluoride toothpaste.
- For adults and children 6 years of age and over:
  - Use a soft toothbrush with a small one for children and a pea-sized amount of regular fluoride toothpaste.

**Foods to have every day**
- Tap water with fluoride
- Breast milk or infant formula (for babies)
- Plain milk
- Fruits, vegetables and legumes
- Milk, yoghurt and cheese
- Lean meat, fish, chicken, eggs and legumes

**Drinks to have every day**
- Tap water with fluoride is the best drink for healthy teeth.
- Low fat milk can be given to children 2 years of age and over.

**Foods and drinks to limit**
- Soft drinks
- Flavoured milk
- Cordial
- Juice
- Sweets, chocolates, fruit bars, sweet biscuits, cake and sweet spreads

**Bottle feeding**
- Always hold your baby when bottle feeding.
- Children can start drinking from a cup when they are 6 months of age.
- A bottle is not needed for a child after 12 months of age.
- Do not put a dummy with milk or milk products in a child's mouth.

**Visiting the dentist**
- Children should have an oral check by 2 years of age.
- Regular checks with a dental professional are important for you and your child. Talk to your dental professional about how often you and your child should have an oral health check.

**Public dental services in Victoria**
- Health care card
- Pensioner concession card
- It will cost about $36.00* if you do not have one of these cards.
- You may also be able to make an appointment for yourself if you have one of these cards.
- For more information or to find your closest community dental clinic call 1200 365 854.

*Cost may change.
Oral hygiene products

• Distributed to children and their immediate family

For children 0 to 18 months of age

For children 18 months to 6 years of age

For adults and children 6 years of age and over
Longitudinal evaluation design

- **Enrol in study**: March - July 2012
- **Baseline data collection (survey)**: March - July 2012
- **Tooth-pack distribution**: 18 * months
- **Enrol or re-enrol in study**: Sept 2012 - Jan 2013
- **Baseline data collection OR secondary data collection (survey)**: March - July 2013 (for those who attended 18 month consultation)
- **Tooth-pack distribution**: 24 * months (2 years)
- **Data Collection (survey via mail)**: March - July 2013
- **Tooth-pack distribution**: 30 months (2.5 years)

* Scheduled Maternal and Child Health Key Ages & Stages consultation
Reach and participation in the program

- Distribution of Packs to 1,534 families
- Lift the Lip screening
  - 97% of participating children
  - Referrals made: 26% of children
  - Oral disease identified: 11% of children.
- Participation in evaluation
  - Baseline: 688 families (45% participation rate)
  - Follow-up: 230 families (33% retention rate)
  - 26% were health care card holders
  - 26% did not have English as the main language spoken at home
Acceptability and feasibility:
Feedback from MCH Nurses

- Feasible to incorporate into practice
- Welcomed resources (reinforces key messages)
- Mixed experiences with ethnically diverse and disadvantaged communities
- Interest in Lift the Lip training
- Challenging to perform Lift the Lip screening on young children
- More visual aids and models needed
- Targeted distribution at earlier age suggested (at 12 months)
Oral health behaviours (n=230)

- Parents shown how to brush child’s teeth
- Parents assisting children to brush teeth twice/day
- Toothpaste use by children with tooth brushing (twice/day)
- Children visiting a dental professional (in previous 12 months)
- Children taking a bottle to bed/fell asleep on the breast

* Statistically significant difference

Baseline
Follow-up

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Consumption of drinks (n=230)

- Fruit juice/cordial once/day or more
- Drank flavoured milk once/day or more
- Never/rarely drank soft drink
- Water once/day or more
- Plain milk more than once/day

* Statistically significant difference
Consumption of foods (n=230)

- Never/rarely ate sweet spreads
- Fruit more than once/day
- Vegetables more than once/day
- Fruit sticks/bars once/day or more
- Never/rarely ate chocolates/lollies

Baseline
Follow-up

* Statistically significant difference
Limitations

• Language barriers meant some families could not participate in the evaluation
• Declining rates of families participating in MCH service as children get older
• Holiday period.
Recommendations

• Distribute tooth-packs from 12 months of age
• Target distribution to families with highest needs
• Address training gap - lift the lip screening
• Enhance referral pathways from MCH to public oral health clinics
• Develop strategies to address:
  – Increasing sugar intake of young children (drinks and snacks)
  – Lack of parental knowledge of child’s access for public dental care.
Healthy Families, Healthy Smiles Update
Workforce development

- **Training the new workforce**
  - Partnerships established with RMIT and La Trobe University
  - RMIT presentation Feb 2015 and La Trobe University presentation scheduled for Jul 2015

- **Professional development for existing workforce**
  - Teeth Manual resource (2014 evaluation)
  - Seeking opportunities for inclusion of oral health in existing professional development programs (e.g. conferences and regional network meetings).

- **Regular partnership meetings with DET to support initiatives.**
Teeth manual evaluation (2014)

- Survey (165 responses) plus some structured discussions
- Overall seen as a valued and useful resource

Key recommendations:
- Resources and tools to support discussions with families
- Revision of tooth tips fact sheets
- Strengthening referral pathways
- Increasing availability of professional development opportunities.
Tooth tips fact sheet series review

• Tooth tips fact sheets developed in 2009, reviewed 2013.
• First phase of consultation included 136 early childhood professionals and 38 parents/carers.
• Teeth Manual evaluation included questions about tooth tips, 165 responses
• Feedback from a small group of MCHN and DET staff on final draft
• Redevelopment and redesign based on feedback.

From this...
To this...

The new Tooth Tips fact sheet series

- More pictures, less text
- Easier to understand
- A focus on most important messages
Oral health flipchart


• New flipchart developed for playgroup setting in 2014.

• Funding from DHHS to redevelop for MCH service in 2015/16.

• Seeking input from MCHN to inform redevelopment.
Oral health information for MCHN

- DHSV website review created ‘professionals’ tab with dedicated webpage for MCHN
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