Parental Opinions of Anti-Tobacco Messages within a Pediatric Dental Office
THESIS COMMITTEE

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- JoAnna M. Scott, PhD
Tobacco use is the leading preventable cause of death in the United States

Of all adult smokers:
- 80% began before 18 years old
- 99% began before 26 years old
Figure 3.2  Percentage of middle school 8th graders, high school seniors, young adults (18–25 years of age), and adults (≥26 years of age) who currently smoke cigarettes; National Youth Tobacco Survey (NYTS)\textsuperscript{a} 2009 and National Survey on Drug Use and Health (NSDUH)\textsuperscript{b} 2010; United States

Tobacco use in adolescence has long term health impacts
Patients’ effort to quit using tobacco positively related to the number of healthcare providers that provide counseling (An, 2008)
DENTAL PROFESSIONALS

- Increased patient contact: Cleaning and exam every 6 months

- Dentists can more easily identify tobacco using patients

- Tobacco use and oral health
  - Short term
  - Long term

- Dental professionals can successfully help tobacco users quit (Carr, 2012)
Primary perceived barriers:

- Perceived patient resistance
- Lack of reimbursement
- Lack of referral sources
- Lack of time
- Lack of knowledge/training

SPECIFIC AIMS

- How do parents perceive anti-tobacco messages given by a pediatric dentist to their children or to themselves?

- Do parental opinions differ based on their own tobacco use status, or based on their children’s ages?
METHODS
STUDY DESIGN

- Cross-sectional study
- Self-administered pen and paper survey
The Center for Pediatric Dentistry

- Partnership between University of Washington and Seattle Children’s Hospital
- Training site for pediatric dental residents and pre-doctoral dental students.
PARTICIPANTS

Parents accompanying their child to a pediatric dental appointment

Inclusion criteria:

- Parent must be 18 years old or older
- Parent must be responsible for the health of a child between 8-18 years old
- Parent must be able to understand, read and write in English
- Only one survey per household
DATA COLLECTION

- Convenience sample; November 1\textsuperscript{st}, 2013-January 31\textsuperscript{st}, 2014

- Participants approached while waiting during their child’s dental appointment

- Eligibility check-list

- Information Sheet

- Participation was voluntary
Survey instrument:
- Developed using existing literature
- Pilot tested

Emphasis on preserving anonymity

UW Human Subjects Division-Institutional Review Board: Exempt approval-Study #46263
DESCRIPTIVE VARIABLES

- Caregiver’s age, relationship to child, educational level
- Race
- Ethnicity
- Parent’s and Household tobacco-use
- Child’s insurance status
- Number children living in the household and their ages
- Household member in healthcare
**Independent variables of interest:**
- Age of oldest child in the household
  - Less than 7 years old
  - 8-12 years old
  - 13-17 years old
  - 18 years or older
- Parental smoking status

**Dependent variables of interest:**
- Parental opinion about anti-tobacco messages given by a pediatric dentist for both children and caregivers
Data analysis completed with Stata 12.1
- Re-categorization of variables

Descriptive statistics (mean, standard deviations, and percentages) calculated for all variables.

Fisher exact and Chi-square tests use to assess association between independent and dependent variables.
RESULTS
COMPLETED SURVEYS

468 Parents approached

287 Met eligibility and took survey

36 Eligible but not interested in taking survey

145 Not eligible

1 Incomplete and discarded

286 utilized in data analysis

52 No children between 8-18 years

51- Too young
1- Too old

52

44 Not proficient in English

41 Had already taken survey

19- Spanish
5- Russian
2- Arabic
2- Somali
1- Cambodian
1- Chinese
1- Vietnamese
12- Unknown

8 Not a caregiver
Mean age: 42.1 years old (SD 8.4)

78% Any College

49% College Graduate
Average number of children per household: 2.3 (SD 1.3)
Household Adult tobacco use: **26.2%**

Parent current tobacco use: **18.1%**

Parent report of child tobacco use:

<table>
<thead>
<tr>
<th></th>
<th>Parent thinks that child has experimented with tobacco:</th>
<th>Parent thinks that child is currently using tobacco:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>15.1%</td>
<td>8.1%</td>
</tr>
<tr>
<td>No</td>
<td>77.2%</td>
<td>84.6%</td>
</tr>
<tr>
<td>Don’t know</td>
<td>3.1%</td>
<td>3.5%</td>
</tr>
<tr>
<td>Believe child is too young</td>
<td>4.7%</td>
<td>3.8%</td>
</tr>
</tbody>
</table>
ANTI-TOBACCO MESSAGES (ATM)

* Parents were asked to “check all that apply”, therefore percent total is >100%
ANTI-TOBACCO MESSAGES (ATM)

Parental opinion of the youngest age...

...that most people start using tobacco products

- 1% <= 7 years
- 15% 8-12 years
- 76% 13-17 years
- 8% 18+ years

...that a person should be given first anti-tobacco message (general)

- 47% <= 7 years
- 42% 8-12 years
- 6% 13-17 years
- 5% 18+ years

...that a person should be given first anti-tobacco message by a dentist

- 25% <= 7 years
- 18% 8-12 years
- 56% 13-17 years
- 2% 18+ years
When parents indicate it is appropriate for a child to first receive an anti-tobacco message from a dentist

- Parent is current tobacco user:
  - <=7 years old: 32%
  - 8-12 years old: 14%
  - 13-17 years old: 0%
  - 18+ years old: 2%

- Parent is not current tobacco user:
  - <=7 years old: 55%
  - 8-12 years old: 23%
  - 13-17 years old: 19%
  - 18+ years old: 2%

p = 0.598
Would you be upset if your child's dentist asked you about your tobacco use?

- **Parent is current tobacco user**
  - Yes: 76%
  - No: 21%
  - Don't know: 3%

- **Parent is not current tobacco user**
  - Yes: 82%
  - No: 10%
  - Don't know: 8%

p = 0.032
AGE OF OLDEST CHILD & ATM TO CHILDREN

Has your child's dentist spoken to your child about his/her tobacco use?

<table>
<thead>
<tr>
<th>Age Group</th>
<th>Yes</th>
<th>No</th>
<th>Don't know</th>
</tr>
</thead>
<tbody>
<tr>
<td>8-12 yrs</td>
<td>1%</td>
<td>80%</td>
<td>19%</td>
</tr>
<tr>
<td>13-17 yrs</td>
<td>8%</td>
<td>67%</td>
<td>24%</td>
</tr>
<tr>
<td>18+ years</td>
<td>16%</td>
<td>53%</td>
<td>32%</td>
</tr>
</tbody>
</table>

p = 0.003
Has your child's dentist spoken to your child about his/her tobacco use?

- **8-12 yrs**: 80% Yes, 19% No, 1% Don't know
- **13-17 yrs**: 67% Yes, 24% No, 8% Don't know
- **18+ years**: 53% Yes, 32% No, 16% Don't know

**p = 0.003**
Do you feel it was appropriate for a dentist to ask your child about tobacco use?

Age of oldest child in household:

- 8-12 yrs: 47% Yes, 16% No, 37% Don't know
- 13-17 yrs: 85% Yes, 13% No, 3% Don't know
- 18+ years: 100% Yes, 0% No, 0% Don't know

p = 0.004
DISCUSSION
## DEMOGRAPHICS
### COMPARED TO POPULATION-BASED DATA

<table>
<thead>
<tr>
<th></th>
<th>Current Survey</th>
<th>Population-based data</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adult tobacco use</td>
<td>18.1%</td>
<td>18.1% (CDC, 2012)</td>
</tr>
<tr>
<td>Household tobacco use</td>
<td>26.2%</td>
<td>24.9% (NHANES 99-00)</td>
</tr>
<tr>
<td>Hispanic population</td>
<td>14.9%</td>
<td>9.2% (Census 2010, King County)</td>
</tr>
<tr>
<td>Medicaid enrolled children</td>
<td>65.0%</td>
<td>31.7% (Census 2010, King County)</td>
</tr>
</tbody>
</table>
National Data:
- 20% of 6-8th graders have tried tobacco
- 25% of 12th graders currently use tobacco
  (Surgeon General’s Report, 2012)

Survey:
- 15% thought a child had experimented with tobacco
- 8% though a child currently used tobacco

Parental underestimation of children’s risk taking behaviors, including tobacco use—has been documented in the literature.
  (Stanton, 2000)(Yang, 2006)
Survey:

- **90.9%** of parents reported dentists as an appropriate source of anti-tobacco messages to children and adolescents.
- Parents who use tobacco were more likely to be upset if their child’s dentist talked to them about tobacco use \((p=0.032)\)
Survey:

- **90.9%** of parents reported dentists as an appropriate source of anti-tobacco messages to children and adolescents.
- Parents who use tobacco were more likely to be upset if their child’s dentist talked to them about tobacco use ($p=0.032$)

- **89%** parents think tobacco education is part of a pediatrician’s job

- Fewer smokers had positive attitudes ($p=0.0002$)

*Accessing adult smokers in the pediatric setting: What do parents think?*

Deborah Moss, Patricia A. Cluss, Michele Mesiano, Kevin E. Kip
Survey:

- 90.9% of parents reported dentists as an appropriate source of anti-tobacco messages to children and adolescents.
- Parents who use tobacco were more likely to be upset if their child’s dentist talked to them about tobacco use \( (p=0.032) \)

Pediatric Attitudes Regarding Pediatric Dentists’ Counseling on Tobacco Use: A Survey of Five Private Practices

Parental Attitudes Regarding Pediatric Dentists’ Counseling on Tobacco Use: A Survey of Five Private Practices

90% parents were accepting of ATM by pediatric dentist

Tobacco using parents less accepting of Pediatric Dentist educating parents to quit smoking \( (p<.001) \)
LIMITATIONS

- Survey
  - Cross-sectional, convenience sample, self report
    - Selection and Recall Bias
    - Skip pattern discrepancy
    - Questions Misunderstood

- Generalizability
  - Single clinic
  - Language

- Tobacco use among children and their exposure at home socially construed as unhealthy:
  - Social desirability bias
CONCLUSION
The majority of parents believed that...

- Dentists are an appropriate source of anti-tobacco messages for children and adolescents (90.9%).

- The youngest age a dentist should give anti-tobacco messages is between 8-12 years old (53.9%).

This study...

- Can help alleviate the commonly cited barrier of patient/parent resistance, and therefore encourage dentists to feel more confident in approaching tobacco education with patients and their families.

- Can provide a reference in support of anti-tobacco messages given by dentists to children as young as 8 years old.
More studies needed to promote the provision of anti-tobacco counseling by addressing other commonly cited barriers.

- Dissemination of available anti-tobacco resources
- Anti-tobacco programs and education developed for use in the dental setting
U.S. Department of Health and Human Services, Health Resources and Services Administration’s Maternal and Child Health Bureau (Title V, Social Security Act), grant # T76MC00011.
QUESTIONS OR COMMENTS?

Thank you!
REFERENCES


44
<table>
<thead>
<tr>
<th>Age of oldest child:</th>
<th>8-12 yrs n=121</th>
<th>13-17 yrs n=137</th>
<th>18+ yrs n=19</th>
<th>Total</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Does parent think children have experimented with tobacco</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>p-value *</td>
</tr>
<tr>
<td>Yes</td>
<td>2 (5.7)</td>
<td>30 (85.7)</td>
<td>3 (25.0)</td>
<td>191</td>
<td>p&lt; 0.001**</td>
</tr>
<tr>
<td>No</td>
<td>84 (44.0)</td>
<td>93 (48.7)</td>
<td>14 (7.3)</td>
<td>35</td>
<td></td>
</tr>
<tr>
<td>Don't know</td>
<td>9 (75.0)</td>
<td>3 (25.0)</td>
<td>0 (0.0)</td>
<td>12</td>
<td></td>
</tr>
<tr>
<td>Missing</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Does parent think children currently use tobacco (within past 30 days)</th>
<th>8-12 yrs</th>
<th>13-17 yrs</th>
<th>18+ yrs</th>
<th>Total</th>
<th>p-value *</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>2 (10.5)</td>
<td>17 (89.5)</td>
<td>0 (0.0)</td>
<td>19</td>
<td>p= 0.003**</td>
</tr>
<tr>
<td>No</td>
<td>90 (42.1)</td>
<td>108 (50.5)</td>
<td>16 (7.5)</td>
<td>214</td>
<td></td>
</tr>
<tr>
<td>Don’t know</td>
<td>7 (77.8)</td>
<td>2 (22.2)</td>
<td>0 (0.0)</td>
<td>9</td>
<td></td>
</tr>
<tr>
<td>Missing</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>2</td>
<td></td>
</tr>
</tbody>
</table>
Table: Parental opinion of youngest age for first anti-tobacco message (ATM) stratified on if a family member worked in the medical field.

<table>
<thead>
<tr>
<th>Youngest age for 1st ATM</th>
<th>Someone in household works in medical profession:</th>
<th></th>
<th></th>
<th>p-value *</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Yes</td>
<td>No</td>
<td>Total</td>
<td></td>
</tr>
<tr>
<td>&lt;=7</td>
<td>30 (55.6)</td>
<td>102 (45.1)</td>
<td>132</td>
<td>p= 0.589</td>
</tr>
<tr>
<td>8-12</td>
<td>20 (37.0)</td>
<td>97 (42.9)</td>
<td>117</td>
<td></td>
</tr>
<tr>
<td>13-17</td>
<td>2 (3.7)</td>
<td>15 (6.6)</td>
<td>17</td>
<td></td>
</tr>
<tr>
<td>18+</td>
<td>2 (3.7)</td>
<td>12 (5.3)</td>
<td>14</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Youngest age for 1st ATM by a DENTIST</th>
<th>Yes</th>
<th>No</th>
<th>Total</th>
<th>p-value *</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;=7</td>
<td>17 (32.1)</td>
<td>50 (23.0)</td>
<td>67</td>
<td>p= 0.078</td>
</tr>
<tr>
<td>8-12</td>
<td>29 (54.7)</td>
<td>122 (56.2)</td>
<td>151</td>
<td></td>
</tr>
<tr>
<td>13-17</td>
<td>5 (9.4)</td>
<td>43 (19.8)</td>
<td>48</td>
<td></td>
</tr>
<tr>
<td>18+</td>
<td>2 (3.8)</td>
<td>2 (0.9)</td>
<td>4</td>
<td></td>
</tr>
</tbody>
</table>
RELEVANT LARGE SCALE REPORTS

- 2012 Surgeon General’s Report
- U.S. Preventive Services Task Force (USPSTF)
  - 2013 Updated
  - Provide education or brief counseling to prevent initiation of tobacco use in school-aged children and adolescents

Preventing Tobacco Use Among Youth and Young Adults
A Report of the Surgeon General

2012
U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES
Public Health Service
Office of the Surgeon General
Rockville, MD