Nursing Health Promotion Interventions Needed to Reduce Oral Health Disparities: the Situation in Israel

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WHO – Health Promotion

The Role of Nursing

Nursing encompasses autonomous and collaborative care of individuals of all ages, families, groups and communities, sick or well and in all settings. It includes the promotion of health, the prevention of illness, and the care of ill, disabled and dying people.

http://www.who.int/en/
Systems Influenced by Oral Health
Background –
Behavioral Model of Health Care Utilization

Predisposing, Enabling and Reinforcing Factors Associated with Oral Health Care

**Predisposing** (demographic characteristics and attitudes)
- Dominant ethnic/racial group
- Non-immigrants
- Positive beliefs about dental/oral health

**Enabling** (internal resources - personal habits or behaviors; external resources - income and socioeconomic status)
- Brushing and Flossing
- Socioeconomic status, Education Level, Employment, Insurance

**Reinforcing** (reasons to use services - need)
- **X** Smoking, Cardiac Disease, Obesity
- Pain

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Study Objectives

In this study, we use the Andersen and Aday's Behavioral Model of Health Care Utilization in a nationwide sample to:

• examine the model’s factors associated with using primary dental care services for Israel's and
• assess whether these factors differ by ethnicity.
Two Main Groups
• Israeli-Jews
• Israeli-Arabs (Moslems, Christians and Druze)
Methods - Sample

1. Datasets – National Data: KAP (knowledge, attitudes, practice)
2. Institutional Ethics Committee - #13/056
3. Sampling frame KAP-2010 - telephone numbers from the national phone registry, Adults 18+, Languages included Hebrew, Arabic and Russian
   - n=2,593 Israeli-Jews and
   - n=1,723 Israeli-Arabs
4. Exclusions – dentures wearers, those missing data on dental variables
5. SAS® Version 9.3
Methods - KAP Variables

Independent Variables

• **Predisposing** - gender (male/female), age, education (college degrees, diploma from a high school, no diploma), marital status (married, divorced, separated, single) and country of birth (Israel or not)

• **Enabling** - brushing teeth (>once/day, once/day, not regularly and never); flosses (>once/day, once/day, not regularly and never)

• **Reinforcing/need** - reported physical status (excellent, very good, good, not good, poor), weight (kilograms) and height (centimeters), smoker (current – yes/no; past history-yes/no)

Dependent Variables

• **Health care outcome of dental care use** - time of last visit (last half year, more than a half year ago to one year; more than a year ago to two years, more than two years ago, and never), and **reason for dental visit** (dental checkup visit; dental hygienist visit including cleaning; treatment for fillings, dental extraction or root canal; treatment for dentures, bridge or orthodontics; treatment for gums; and treatment for injury).
Results - KAP 2010
(Predisposing and Enabling)

Predisposing

<table>
<thead>
<tr>
<th>Category</th>
<th>Israeli-Arabs</th>
<th>Israeli-Jews</th>
</tr>
</thead>
<tbody>
<tr>
<td>&gt;=HS****</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Israeli-born****</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Married</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
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</table>

Enabling

<table>
<thead>
<tr>
<th>Category</th>
<th>Israeli-Arabs</th>
<th>Israeli-Jews</th>
</tr>
</thead>
<tbody>
<tr>
<td>Floss-Teeth***</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Brush-Teeth***</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Employed***</td>
<td></td>
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<tr>
<td>Income&lt;Avg***</td>
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</tr>
</tbody>
</table>
Results - KAP 2010
(Reinforcing/Need and Health Outcome)

Reinforcing/Need

- Smoker***
- BMI<24.9***
- Healthy***
- Dental Pain***

Health Outcome

- DDS - Primary***
# Results – Multivariable Predicting Use of Primary Dental Care (OR ±95% CI)

<table>
<thead>
<tr>
<th></th>
<th>Israeli- Jews</th>
<th>Israeli-Arabs</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Predisposing</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Age</td>
<td></td>
<td>35-44 (0.62, 0.39-0.99) *</td>
</tr>
<tr>
<td></td>
<td></td>
<td>55-65 (0.46, 0.22-0.99) *</td>
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<tr>
<td>• Non-Immigrant</td>
<td>(0.74, 0.58-0.94) ***</td>
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</tr>
<tr>
<td><strong>Enabling</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• &gt;HS</td>
<td>(1.62, 1.23-2.13) ***</td>
<td>(1.62, 1.20-2.20) **</td>
</tr>
<tr>
<td>• Employed</td>
<td>(1.36, 1.09-2.70) **</td>
<td></td>
</tr>
<tr>
<td>• &gt;Average Income</td>
<td>(1.78, 1.45-2.19)****</td>
<td>(1.67, 1.29-2.16) ***</td>
</tr>
<tr>
<td>• Flosses</td>
<td>(1.84, 1.49-2.28)****</td>
<td>(2.22, 1.57-3.15)****</td>
</tr>
<tr>
<td><strong>Reinforcing/Need</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Normal BMI</td>
<td>(1.23, 1.02-1.48) *</td>
<td></td>
</tr>
<tr>
<td>• Current Smoker</td>
<td>(0.69, 0.54-0.88) **</td>
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</tbody>
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*p<0.05*, *p<0.01**, *p<0.001***, *p<0.0001****; NS-married, brushes teeth, good health
Discussion

• Ethnic differences in use of primary care
• Predisposing variables – differ slightly based on ethnicity
• Enabling variables – consistent with other literature
• Reinforcing/Need – primary care not consistent with need...

Nurses are health professionals that can explain and reinforce need!
Conclusion - ...but why us?

Nurses are among the most trusted health professionals to patients. We have earned this status by considering all aspects of health. We consider mental health, spiritual needs, social support. **We need to remember oral health!**
Thanks!

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