The Impact of Nursing on Oral Health Across the Lifespan

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OHNEP Program Aims

• Advance a national oral health agenda for the nursing profession
• Build interprofessional oral health workforce capacity
• Integrate oral-systemic health into undergraduate and graduate nursing programs nationwide.
  • Faculty development
  • Curriculum integration
  • Establishment of “Best Practices” in clinical settings
Surgeon General Report: 

## Oral Health Disparities

### Morbidity
- About **half of all children** and **two-thirds of adolescents** aged 12–19 years from lower income families have untreated tooth decay.
- **Over 40% of poor adults** have untreated tooth decay.
- **One-fourth** of U.S. adults aged 65 or older have lost all of their teeth.

### Access
- About **108 million people** in the U.S. have no dental insurance.
- The U.S. has about 141,800 working dentists and 174,100 dental hygienists, but **4,230 Dental Health Professional Shortage Areas** with **49 million people** living in them.

### Cost
- Employed adults lose more than **164 million hours** of work each year due to oral health problems or dental visits.
- **51 million school hours** are lost annually because of oral health problems or dental visits.
- In 2010, an estimated **$108 billion** was spent on dental services in the United States.

(CDC, 2011 & 2013; U.S. Department of Health and Human Services & Health Resources and Services Administration, 2014)
The Opportunity for Change

Why Nurses?

- **Largest Health Profession**
  - 4 million Registered Nurses (RNs)
  - 234,000 Nurse Practitioners (NPs)  
    - 89% are certified in an area of primary care
  - 11,800 Nurse-Midwives (NMs)

- **Most Trusted Profession**
  - Providing care and promoting health

- **Nurses are Everywhere**
  - Hospitals, ambulatory centers, schools, camps, workplace, retail clinics, homecare

Interprofessional Oral Health Care Model

Increased Oral and Overall Health Outcomes

Increased Access to Oral Healthcare, Reduced Oral Health Disparities

IP Oral-Systemic Education

Builds Primary Care Oral Health Workforce Capacity

Community

Health & Education Systems

Collaborative Practice

National Oral Health Needs

Fragmented Oral Healthcare System


ASK about oral health risk factors and symptoms of oral disease

LOOK for signs that indicate oral health risk or active oral disease

DECIDE on the most appropriate response

ACT offer preventive interventions and/or referral for treatment

DOCUMENT as structured data for decision support and population management

Available at: www.QualisHealth.org/white-paper
The Weave Approach
Oral Health Nursing Education and Practice (OHNEP)

www.ohnep.org
Smiles for Life: A National Oral Health Curriculum

www.smilesforlifeoralhealth.org
Teaching Oral Health Care for Older Adults

Teaching Strategies

HEENT to HEENOT – Putting the Mouth Back in the Head

Oral Health in Pregnancy
Oral Health and Pregnancy

- 76% of pregnant women surveyed had oral health problems such as bleeding gums or toothaches.
- Yet only about half with a dental issue report a dental visit during pregnancy.
- Cigna Corporation (2015) conducted a national survey of 801 pregnant women, only half of whom had dental insurance.
- Only 44% said providers talked to them about oral health during their prenatal visits.
- Women whose providers talked to them about oral health were twice as likely to have a dental checkup during pregnancy.

Oral-Systemic Health Implications

• Studies show an association between periodontal infection and negative pregnancy outcomes.

• When a mother has untreated caries, her child’s odds of having untreated dental caries almost doubles.

• Periodontal treatment is SAFE for pregnant women.
  • Avoids the adverse consequences of periodontitis for the mother
  • Not associated with any negative infant or maternal outcomes
What’s A Nurse to Do?

- Reassure patients that prevention and treatment of oral conditions including dental x-rays (with abdominal shielding) and local anesthesia (lidocaine with or without epinephrine), are safe during pregnancy

- Encourage oral hygiene practices

- Provide toothbrushes, floss, toothpaste

- Integrate oral health topics in prenatal classes

- Provide ongoing nutritional support

- Provide support for smoking cessation

- Establish community partnerships—educate oral health care providers

(Oral Health Care During Pregnancy Expert Workgroup, 2012)
Oral Health Framework

Address oral health as a part of well woman healthcare

Take a health history

Include HEENOT exam every trimester

Assess the situation

Make a plan with the woman

Enter Oral Health Findings in EHR

Oral Health in Children and Adolescents
Early Childhood Caries (ECC)

- Major public health problem
- Most common chronic childhood disease
- 5 times more common than asthma
- 16 million children have untreated decay
- 80% of ECC found in only 20% of children
ECC Affects the Whole Child

- Pain and infection
- Premature tooth loss
- Higher risk of new carious lesions in primary and permanent dentition
- Trouble eating, speaking, sleeping, learning
- Risk for delayed physical growth and social development
- School absence and poorer academic performance
- Increased days with reduced activity
- Diminished quality of life
- ED and OR for advanced disease
- Increased treatment costs
Stages of Early Childhood Caries
What’s a Nurse to Do?

- Perform the HEENOT exam
- Dental Referral as needed
- Conduct patient and parent oral care education
  - Use a soft tooth brush and toothpaste with fluoride
    - “Smear when they appear, Pea after 3”
  - Brush twice a day - after breakfast and before bedtime
  - Floss once a day before bedtime
- Apply Fluoride Varnish
HPV is the most common sexually transmitted virus and infection in the US.

Every day in the US, about 12,000 people ages 15 to 24 are infected with HPV.

Approximately 26 million Americans on any given day have an oral HPV infection.

9 HPV strains are known to cause cancers, and another 6 are suspected of causing cancers.

- HPV is a leading cause of oropharyngeal cancer (the very back of the mouth) and a very small number of front of the mouth, oral cavity cancers.

(CDC, 2015 & 2017; The Oral Cancer Foundation, 2017)
What’s a Nurse to Do?

- Perform the HEENOT exam
- Dental Referral as needed
- Conduct patient and parent HPV education
- Vaccine Recommendation
  - Both Gardasil and Cervarix protect against HPV16 associated with oral cancers
  - Recommended for girls and boys at the target age of 11–12 years
  - Catch-up for females and males through age 26

(CDC, 2015)
Oral Health Framework

Address oral health as a part of well child and adolescent health

1. Take a history
2. Include HEENOT exam
3. Assess the situation
4. Make a plan with the parent and child
5. Enter Oral Health Findings in EHR

Oral Health and Adults
Oral Health in Adult Primary Care

- More than 27% of adults have untreated tooth decay.
- Almost half of adults over age 30 exhibit signs of gum disease.
- Dental disease causes employed adults to lose more than 164 million hours of work per year.
- In 2015, 30.3 million Americans, or 9.4% of the population, had diabetes.
- Most adults with diabetes don’t know they’re at high risk for oral complications, such as periodontitis.

Adults who are diabetic may have more mouth problems!

- Increased risk for gum disease
- Increased risk for tooth loss
- Increased risk for dry mouth
- Increased risk for thrush
- High blood sugar helps bacteria grow which can lead to tooth decay.
- High blood sugar can also interfere with normal healing in your mouth.

(Oral Health America & Wisdom Tooth Project, 2017)
What’s a Nurse to Do?

• Perform the **HEENOT** exam

• Patient education
  • Monitor glycemic control
  • Daily tooth brushing and flossing routine
  • Nutritious diet and exercise
  • Weight control
  • Smoking cessation
  • Strategies for dry mouth
  • Regular Dental visits and checkups
Oral Health in Adult Acute Care
Ventilator Associated Pneumonia (VAP)

- VAP crude mortality approximately 10-40%.
- Est. cost $10,000-$30,000 per VAP
- Increase LOS up to 4-14 days
- Annual cost $2 billion dollars.

Non-ventilator Hospital Acquired Pneumonia

- 1st most common HAI in U.S
- Increased morbidity → 50% are not discharged back home
- Increased mortality → 18%-29%
- Extended LOS → 4-9 days
- Increased Cost → $28K to $109K
- 2x likely for readmission <30 day

Pathogenesis → Prevention

Germs in Mouth
- Dental plaque provides microhabitat
- Bacteria replicate 5X/24 hrs

Aspirated into Lungs
- Most common route
- 50% of healthy adults micro-aspirate in sleep

Weak Defenses
- Poor cough
- Immunosuppressed
- Multiple co-morbidities

What’s a Nurse to Do?

- Perform the HEENOT exam
- Implement VAP Bundle
  - Brush
  - CHG rinse alone
  - CHG rinse in combination
  - Swab/Clean/Moisturize
  - Suction
- Patient education
  - nutrition, hygiene, and proper oral care
Oral Health Framework

Address oral health as a part of adult primary and acute care

- Take a history
  - Ask about oral health risk factors and symptoms of oral disease
- Include HEENOT exam
  - Look for signs that indicate oral health risk or active oral disease
- Assess the situation
- Make a plan with the patient and caregivers
  - Act: offer preventive interventions and/or referral for treatment
- Enter Oral Health Findings in EHR
  - Document as structured data for decision support and population management

Oral Health and Behavioral Health
Poor Behavioral Health $\rightarrow$ Poor Oral Health

- Depression is associated with higher abuse of alcohol, caffeine, and tobacco, which may cause tooth erosion and decay.
- Depression often causes self-neglect, which often results in poor oral hygiene and consequential tooth decay.
- Bipolar disorder often causes over-brushing that may damage gums and cause dental abrasion, mucosal lacerations, or gingival lacerations.
- Bipolar patients treated with lithium have a higher rate of xerostomia and stomatitis.
- Acids from vomiting make patients with eating disorders more susceptible to tooth decay.
- Side effects of antipsychotic, antidepressant, and mood stabilizer drugs include a higher risk for oral bacterial infections and xerostomia.

(Penn Dental, 2017)
What’s a Nurse to Do?

- Perform the **HEENOT** exam
- Medication management
- Dental Referral as needed
- Patient education
  - Nutrition
  - Hygiene
  - Proper oral care
- Provide resources

(Nursing Link, 2017)
Oral Health Framework

Address oral health as a part of behavioral healthcare

Take a history

Include HEENOT exam

Assess the situation

Make a plan with the patient and caregivers

Enter Oral Health Findings in EHR

Oral Health and Older Adults

- The older population is retaining their own teeth.

- The teeth that are being retained have more extensive (and older) restorations in them.

- The mouths of older patients have less potential to remineralize.

- Older populations may be less able to maintain a clean mouth.

- Oral cancers are most common in older adults, particularly in people who smoke and are heavy drinkers.

(National Cancer Institute, 2016; Oral Health America & Wisdom Tooth Project, 2017)
Aging and Oral Health

• Personal Reasons
  • Smiles
  • Kisses
  • Laughter

• Good Nutrition
  • Vital for nourishment and eating

• Health
  • Chronic Illnesses
  • Gum disease
  • Medications

• Quality of Life
  • Life pleasures
  • Feel good
  • Relax with friends and family

(Oral Health America & Wisdom Tooth Project, 2017)
Barriers Facing Older Adults

- Belief that it is no longer necessary to visit the dentist anymore
- Transportation
- 70% of long term care patients are on Medicaid
- Medicare does not cover preventive dental care

(Oral Health America & Wisdom Tooth Project, 2017)
What’s a Nurse to Do?

• Perform the **HEENOT** exam
  • Screen for Oropharyngeal Cancers
• Dental referral as needed
• Patient education
  • Daily tooth brushing and flossing routine
  • Nutritious diet and exercise
  • Weight control
  • Smoking cessation
• Limited alcohol consumption
• Regular Dental visits and checkups
• Sharing important health information with all healthcare providers

(Oral Health America & Wisdom Tooth Project, 2017)
Oral Health at the End of Life
Oral Health at the End of Life

The Mouth as Integral to QOL

- Dignity
- Nutrition
- Comfort
- Communication
- Socialization
- Intimacy
- Ability to talk, laugh, & smile.

(Wholian, D, 2015)
Oral Health Framework

Address oral health as a part of older adult and end of life care

Take a history
- **ASK** about oral health risk factors and symptoms of oral disease

Include **HEENOT** exam
- **LOOK** for signs that indicate oral health risk or active oral disease

Assess the situation

Make a plan with the patient and caregivers
- **ACT** offer preventive interventions and/or referral for treatment

Enter Oral Health Findings in EHR
- **DOCUMENT** as structured data for decision support and population management

OHNEP Social Networking for Oral Health

OHNEP site visits (since 2012)
- 11,600 sessions
- 7,200 users
- 34,000 page views
The Missing Piece of Whole Person Care
We Need YOU!
References


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