Expanding oral health access: Innovative Nursing-Dental Service Learning in School Health Centers

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Need for oral health care

- Dental caries is the most common infectious disease in childhood
- 42% of children from 2 to 11 y/o
- 50% of children from 12 to 15 y/o
- Largest concentration of caries in children living in low income families

(DCC, 2011)

Dental Caries

- Multifactorial

Agent = Bacteria
- S. mutans
- Lactobacillus

Host = Teeth
- Age
- Fluoride exposure
- Morphology
- Position

Substrate = Sugars
- Oral hygiene
- Salivary flow
- Carbohydrate type
Dental caries and race

2-11 years old 12-19 years old

Dental caries and poverty status

2-11 years old 12-19 years old

Oral health inequities

- 14 million low income children did not see a dentist in 2011
- 42% of uninsured children did not see a dentist within the past year
- Poor children have twice the rates of untreated dental caries as higher income children
- Rates of untreated caries in African American children 12 to 17 years of age increased in 2009-2010

http://www.childstats.gov/americaschildren/care4.asp#hc4a
National shortage of pediatric dentists

- Prevalence of pediatric dentists nationally is 3.95/100,000 population
- Pediatric dentists treat a higher proportion of children on Medicaid/CHIP
- As more children are covered under the ACA, the demand for pediatric dentists will increase

http://www.aapd.org/assets/1/7/2012_Childrens_Oral_Health_Legislative_Issues.pdf

Primary Care knowledge gap in Oral Health Care

- Primary care providers lack competence in performing oral health assessments
- Hesitant to incorporate oral health care into routine well child visits
- Frequent primary visits offer opportunity for oral health assessment and education to improve health outcomes

(Golvineaux et al., 2012, Talib, 2011)

Role of Nurse Practitioners & Oral Health

- NPs can increase access to oral health care services by implementing a standard of evidence-based practice including:
  - oral health assessment
  - preventive services
  - Timely referrals beginning in first year of life through adolescence
- NPs can enhance the dental workforce to improve oral health outcomes in children and adolescence

Hallas & Shelley (2009)
Comprehensive caries prevention in primary care

- Oral health risk assessment by 1 year of age
- All children should establish dental home by age 1
- Most urgent for referral are those with:
  - Sleeping with a bottle/BF throughout night
  - Maternal caries and poor oral hygiene
  - Low income families
- Oral health education on modifying intake of sugary snacks, frequent snacking, oral hygiene
- APPLY FLUORIDE VARNISH

Check for Early Signs of Decay: White Spots

Check for Later Signs of Decay: Brown Spots
What is fluoride varnish?

- Fluoride in a resin/synthetic base in high concentration brushed on teeth to maintain prolonged contact with enamel - 5% NaF (22,600 ppm F)
- Fluoride varnish has not been associated with fluorosis
- Can be applied by any clinic personnel after brief training

Oral health & early adolescents

- Mixed dentition - new adult teeth emerging — important to protect for lifelong health
- Important time to modify caries risk behaviors
- Early adolescent focus on appearance can add to motivation

Caries Risk Factors in Adolescents

- Inadequate access to fluoride (especially topical fluoride)
- Poor oral hygiene
- Frequent access to sugars and acids (soda and sour candy)
- Previous caries experience
- Reduced salivary flow
UCSF Elev8: an academic-practice partnership

- Three year grant to UCSF Schools of Nursing & Dentistry to increase sustainability in 5 middle school SHCs in a medically underserved area of Oakland, CA
- On site medical, dental & behavioral health

Funded by Atlantic Philanthropies

UCSF Elev8: an academic-practice partnership

- Faculty practice at SHCs
- Technical assistance, sharing best practices between clinics
- Innovative service-learning projects for nursing & dental students

Interprofessional training

- Dental faculty trained PNP & FNP students in oral health assessment, enhanced caries prevention & fluoride varnish
- Varnish practice in skills lab
- NP faculty trained dental students in motivational interviewing
- Joint dental & NP student participation at screenings

Elev8 screenings 2012
Interprofessional practice

- Partner with 2 FQHCs for mass billable screenings including oral health
- Use dentist to screen (highest billing) w/ student observation
- NP & dental students for history taking & fluoride varnish
- If even 10% of children Medicaid eligible, screening is sustainable [NAHC/SBHA]

NP & dental student applying fluoride varnish at a SHC screening, Fall 2013

Doing a dental screening:

- Ask patient for any existing pain or discomfort in their mouth
- Look inside the mouth for any active decay or restoration
- Rating based on level of decay & discomfort

http://ufsasda.com

Oral health screenings 2012-2013

- 14 NP students assisted with screenings at 5 HS through NAHC in 1 week
- 1548 students screened
- 1408 varnished
- 16% identified with urgent oral health needs & referred
- Twice as many received fluoride varnish as in prior year without student help
- Over 150 NP & dental students have participated in Elev8 activities
- 50 dental students involved in screenings
- Many oral health screenings combined with Get Yourself Tinted campaigns
- Variable rates of mass fluoride varnish
Importance of SHC screenings

- Increase in access, continuity,
- Focus on prevention and oral hygiene
- Opportunity for oral health education and formation of early positive health habits including routine dental visits
- Decreased anxiety around experience of dental visits in SBHC

Value for students of experience

- Confidence in oral health assessment, fluoride varnish by concentrated practice on older children
- Broader understanding of oral health
- Social determinants of health
- Students eager for interprofessional experiences

Lessons learned

- Challenges of truly doing interprofessional education
- Schedules
- Mixing pre-licensure dental students & post-licensure NP students
- Parallel vs. truly integrated
- Some students need more preparation than others to enter community settings
- Mass screenings are a Win-Win intervention for both clinic sustainability and concentrated student learning
Questions?

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- References on request