Developing an Effective Community Oral Health Workers program for Early Head Start

**GOAL:** Collaborative community participatory research to help reduce the burden of Early Childhood Caries in LA County

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UCLA IRB # 18-000014 ACFF Community Oral Health Workers (COHW) Project
A collaborative community research project between:

**UCLA School of Dentistry - SPICE-PD**

**Strategic Partnership for Interprofessional Collaborative Education in Pediatric Dentistry – SPICE – Research and Statistics Module**

- [www.uclachatpd.org](http://www.uclachatpd.org)
- Funding: HRSA supports dental resident research

**2017 - Trained 10 COHWs**

**Community Partners:**
- Venice Family Clinic, Santa Monica, CA
- Westside Children’s Center, Culver City, CA

**Sponsor/Funding:** CA Office of Statewide Health Planning & Development (OSHPD)

**2018 - Trained 13 COHWs**

**Community Partner:** Hope Street Margolis Family Center, Downtown Los Angeles

**Sponsor/Funding:** Alliance for a Cavity Free Future
Prevalence & Impact of ECC in California

- California = one of the most ethnically diverse states in the U.S.
  - Over 1.6 Million children under 5 years of age
- ECC still the #1 chronic disease among children:
  - By 3rd grade: Over 70% of CA children have caries
  - Untreated ECC → many detrimental effects
    - For the child: pain and suffering, anesthesia & risk, delayed development (from nutrition and sleep problems), → decreased educational attainment
    - Lost school days ($$ to schools + parent lost wages)
    - For family: mental distress, cost, lost wages, etc.
- Communities of color - Disproportionately affected
  - Lack access to care
  - Face many barriers to health care
- Latinos constitute > half of the youth population
  - Carry the majority of the burden of ECC
3 Phases of each 12-months Projects Progress & Outcome evaluation

**Phase 1**
- UCLA Team selection (students, residents, nursing students, staff & faculty advisors)
- Focus Groups
- Recruitment of COHW trainees
  - 2017 = 10
  - 2018 = 13

(Months 1-2)

**Phase 2**
- Curriculum design
  - 2018: multiple revisions
- Training of the COHWs

(Months 2-6)

**Phase 3**
- Community workshops
  - Total: 15
  - Total: 184 attendees

(Months 7-11)
- Evaluation and reporting

(Month 12)
3-Part Curriculum (4 classes: 2 hours each, over 6 weeks. Myths addressed + time to practice)

1. Community Oral Health Workers & Introduction to Oral Health
   - Introduction to basic oral health - Adult
   - Childhood Caries development
   - Caries risk & protective factors
   - Prevention tips - all ages

2. Pregnancy & Newborn
   - Oral health care during pregnancy - SAFETY
   - Pregnancy gingivitis
   - Morning sickness treatment
   - Tap water
   - Nutrition
   - “Breast is best”
   - etc.

3. Infants & Toddlers
   - Nutrition & Snacking
   - Brushing and flossing basics
   - White Spot Lesions
   - Caries progression
   - Caries balance
   - Fluoride (TP, varnish, water)
   - Teething
   - Thumb sucking
   - ... And more...

4. Child Dental Treatments & Motivating Parents to Change
   - Radiographs
   - Types of child dental treatments
   - Emergency dental care
   - Nitrous oxide vs. oral sedation vs. GA
   - Insurance
   - Self management goals
   - Motivational Interviewing (Basics)
Community Oral Health Workers project
A project generously supported by the Alliance for a Cavity Free Future

UCLA Center for Children’s Oral Health and the Strategic Partnership for Interprofessional Collaborative Education in Pediatric Dentistry

Parent Oral Health Education Flipchart

Curriculum & Parent education flipchart
2017 Materials and Methods - Project I Overview

Intervention Group  
(N=10)

- 10 females caregivers (children ages 0-5 yrs)
- Pretest (27 items)
- Training (13 modules)
- Posttest (6 weeks later)
- Caregivers gave 5 community oral health workshops

Comparison Group  
(N=10)

- 10 female caregivers (children ages 0-5 yrs)
- Pretest (27 items)
- Given a handout on children's oral health
- Posttest (6 weeks later)
**2018 Materials and Methods - Project II Overview**

**Intervention Group**
(N=13)

- 10 females caregivers (Children ages 0-5 yrs)
- Pretest (34 items)
- **Training** (online + 8 hours + 2 practice sessions)
- Posttest (6 weeks later)
- COHWs gave 10 community oral health workshops

**Community Group**
(N=129)

- 129 female caregivers (primarily with children ages 0-5 yrs)
- Pretest (16 items)
- 1 hour presentation by COHWs with Pediatric Dentist support
- Posttest (11 items)
Training:
Conclusions and limitations of the Pilot Project I (2017):

1. **Caregiver’s knowledge and practices about children’s oral health** can be increased with a targeted & culturally competent intervention consisting of at least an 8-hour training course.
   - Handouts alone increased knowledge and practices too.

2. **Oral health attitudes** may take longer to change or require different types of interventions and measurements to capture changes in attitude (avoid ceiling effect).

3. **Limitation**: Small sample size. Parents may report engaging in “socially desirable” practices, not their actual behaviors.
Conclusions and limitations of the Pilot Project I (2017):

4. Explore *different types of questions* to more accurately capture and understand caregiver attitudes and practices about children’s oral health.

5. **Future studies**
   - Larger sample size
   - Longer follow-up interval (6 months to 1 year)
   - Determine knowledge, attitudes, and practices of workshop ATTENDEES, with immediate follow-up - [done in Project II](#)

6. COHWs interested in pursuing careers in dentistry: explore opportunities to utilize COHWs expertise.
Results Project I (2017):

Post intervention (COHW group) - Significant improvement regarding children’s oral health in:
- Total knowledge (p=.0005)
- Practices (p=.04)
- TREND for Attitudes (p=.08)

Comparison group (handout) - a significant increase in
- Knowledge (p=.04)
- Practice (p=.04)

Both groups - significant increase in knowledge and practice
Attitude change - trend for COHW intervention group only

SMALL sample sizes...
13 female caregivers

All Latina/Hispanic

Mean # of children = 2.2  
(Range = 1-6) 
Mean age = 8.2 yo  
(Range = 1 - 20.2 yo)
Project II (2018)
Community Audience Demographics \( (N=129) \)

**All Latina/Hispanic**
- 86% white
- 7% multiracial

**Gender**
- 84% female
- 9% male
- 7% NR

**Age**
- 40-49 y
- 30-39 y
- 20-29 y
- ≥ 50 y
- NR

**Education**
- Less than HS
- HS / GED
- Some Coll
- Post grad Coll Grad
- NR

**Marital Status**
- Single
- Married
- Partner
- Separated
- Divorced
- Widowed
- NR

**Employment**
- Full time
- Part time
- Other
- Homemaker
- NR

**NR** = No Response
Key Knowledge Findings COHWs II (2018) project:

Q4. At what age (in years) can children generally brush their teeth well all by themselves?

Q13. When a pregnant woman has morning sickness (throws up), what can she do to protect her teeth right away?
Key Attitude Findings COHWs II (2018) project:

Community Oral Health Workers (N=13)

Q20. Tap water w/ fluoride prevents cavities. Do you...

- Pretest: 7
- Posttest: 13

Q16. Poor oral health of parents DOES affect their child's dental health. Do you...

- Pretest: 7
- Posttest: 13
Conclusions & limitations of the COHWs II (2018) project (N=13):

❖ ALL were Head Start policy council mothers with **high oral health IQ at start of project.**
   - Highly motivated to participate and learn
   - All reported that their children have a dental home
   - Last took their child to the dentist was routine care

❖ **LACK ADULT dental home:** 5 parents - due to...
   - Don’t have insurance or not eligible for insurance
   - I don’t have the money
   - Dental care too expensive
   - Need affordable/accessible dental homes for low income adults.

❖ **Need longitudinal studies** to determine if community oral health workers’ efforts will actually reduce clinical ECC rate.

❖ Small convenience sample size: N=13
Community presentations:
Key Knowledge Findings Community Attendees (2018) project (N=129):

Q13. When a pregnant woman has morning sickness (throws up), what can she do to protect her teeth right away?

Q4. At what age do you start using toothpaste w/ F1 for your child?

Q2. At what age (in years) can children generally brush their teeth WELL all by themselves?

Community Attendees Pre/Posttest (N=129) p<0.05

- Q13: Pretest 26%, Posttest 83%
- Q4: Pretest 35%, Posttest 76%
- Q2: Pretest 21%, Posttest 45%
Key Attitude Findings Community Attendees (2018) project (N=129):

Q10. Tap water is dangerous. Do you...

- Pretest: Strongly Agree/Agree: 16%
- Posttest: Strongly Agree/Agree: 37%

Q20. Tap water w/ fluoride prevents cavities. Do you...

- Pretest: Strongly Agree/Agree: 0%
- Posttest: Strongly Agree/Agree: 48%
Conclusions & limitations of the COHWs II (2018) project for Community Attendees (N=129):

1. **Significant gains in knowledge and attitudes** after an one-hour oral health presentation given by trained COHWs.

2. **Practices:** while no post-test, parents report high frequency and consumption of sweet snacks and beverages;

3. **Positive:** 72% of parents report taking their child to the dentist for routine care.

4. Surprisingly large numbers of **parents 74%** report having a dental home.
   - 58% report dental visits for themselves (within last 12 months)
   - **Negative:** 21% have not seen a dentist in over 2 years

5. Reasons for not having a dental home (adult):
   - No insurance (58%)
   - Too expensive (32%)
Opportunities:

✓ CHW/promotoras - used effectively in medicine for chronic disease management & screening programs, far longer than dentistry - promising results.
  – Aligns with California Oral Health plan: Obj 3.C: “Increase the # of existing CHW...”
  – COHWs are valuable resources - particularly for high-risk and vulnerable communities - Explore and build community clinical linkages: provide counseling, referral & follow-up – even explore employment via hospitals, clinics as well as dental offices.

✓ Investment in the future - need long-term studies to validate best practice approaches that promote oral health (epidemiological effectiveness data)

✓ Streamlined and consistent training curriculum (core competencies, evidence-based, & tested)

✓ Need defined scope of practice and oversight - nationwide

✓ Explore reimbursement for COHWs services - through State, County oral health funds, DTI pilots, health insurance models of payments, etc.

✓ Enhance COHWs employment opportunities - with dentists & organizations; determine value added to practices
Lessons learned

❖ **Survey Qs** - few validated instruments/questions.

➤ Too many questions (16) + close attention to health literacy

❖ **Translations**: attention to colloquial/regional Spanish (translate and back translate)

❖ **COHWs benefits**: improved communication and public speaking skills; enjoyed the team camaraderie and learning so much about children's oral health; eager to share with their communities - and communities benefit.
Lessons learned

❖ Next steps: They are trained: Now what?

➢ Link with existing health centers; facilitate connections for them
➢ Expand to other Head Starts, Home visiting programs, preschools and schools, FQHC, private dentist practices, PTA, etc.

➢ Policy:
  ■ 26 States in which Community Dental Health Coordinators (CDHCs) work
  ■ 50 States in which prospective CDHCs can currently receive training
  ■ 18 schools offer a CDHC program

➢ ...More can be done to improve utilization of such an underutilized resource - especially for high risk communities where disparities continue!
For more information & link to the new curriculum (available Feb 2019):

http://www.uccoh.org/research.html

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Helpful References


