Home Visits as an Educational Approach

A Pilot Study to Enhance Pre-Doctoral Special Needs Training

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Outline

- Background
- Access to Dental Care
- Dental Education
- Home Visit Intervention
- Results and Conclusions
Definition

 Patients with Special Needs

“those patients whose medical, physical, psychological, or social situations make it necessary to modify normal dental routines in order to provide dental treatment for that individual”—Commission on Dental Accreditation (CODA)

Not just developmental disorders or intellectual disabilities, but also complex medical problems, physical limitations and the vulnerable elderly

Epidemiology

- 2010 census
  - 56.7 million people in US (2.2 million increase from ’05)
  - 1 out of 5 US citizens (18.7%)
  - People >80yo are 8x more likely to have a disability than those <15yo (70.5% vs 8.4%)
- [Future]: ↑ ↑ in community

Global Trends in Life Expectancy

1. Increased survival rate
2. Increased life expectancy in general
3. Deinstitutionalization
Access to Dental Care

- 2006 Health Resources and Services Administration (HRSA) National Survey
- 40,000 families
- Most commonly reported “needed but not received” health service was preventative dental care (6.3%)
Access to Dental Care

**Problem**
- Shortage of dentists willing to treat ISHCN

**Why**
- Concerns about patient behavior, disability level and extent of treatment needs
- Lack of training for dentists
- Inadequate reimbursement

Background | Access to Dental Care | Dental Education | Home Visits | Results and Conclusions
History of Special Needs Dental Education

- **1970s: Robert Wood Johnson Foundation Grants**
  - 11 dental schools over 4 year period to develop teaching programs for ISHCN

- **1980s: American Dental Education Association (ADEA)**
  - Proposed curriculum guidelines
Shortcomings of Dental Education

- 1993 (Fenton et al.) survey US/Canadian Dental Schools
  - 32 schools report <10 hours
- 1999 (Romer et al.) follow up study
  - 53% of schools < 5 hours
- 2002 ADEA survey of graduating seniors
  - 41% less than or not well enough prepared to provide care for pt w/ disability
  - 2nd only to Practice Management in regards to “inadequate experience”
- 2004 (Wolffe et al.)
  - Half of 4th year students have not treated patients with intellectual disability
  - 20% had <1 hour of didactic training
  - 75% did not feel prepared/ 60% did not feel confident

Fenton SJ. People with disabilities need more than lip service (editorial). Spec Care Dent 1999; 19: 198-9
Practice Implications

- Practice design
  - 1997 study
    - 56% of dental practices had steps or stairs to their entrance
    - Only 9% of those practices had a ramp or lift
  - 2002 study
    - Only ¼ practices have full physical access for all patients

Freeman R et al. The provision of primary dental care for patients with special needs. Res Primary Dent Care 1997; 4:31-4
The better dentists felt prepared in school to care for ISHCN the more likely they are to:

1. Set up their practice appropriately
2. Treat a wider diversity of patients with special needs
3. Have positive attitudes towards ISHCN
4. Have greater confidence in providing treatment
5. Evaluate their staff’s abilities and comfort level

Dental Education Reform

2004: “Graduates must be competent in assessing the treatment needs of patients with special needs” — CODA

2012: “Clinical instruction and experience with the patients with special needs should include instruction in proper communication techniques and assessing the treatment needs compatible with the special need. An appropriate patient pool should be available to provide experiences that may include patients whose medical, physical, psychological, or social situations make it necessary to consider a wide range of assessment and care options. The assessment should emphasize the importance of non-dental considerations”
**Intervention**

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**Possible Solution**

- Home visits during dental school
- Pre-doctoral clinical experience treating ISHCN
Home Visits Pilot Study

Objectives:

- Evaluate the use of home visits as one educational approach to increase exposure for dental students to working with individuals with special healthcare needs (ISHCN)
- Provide meaningful non-clinical patient-centered experiences
- Debunk myths and build confidence
Participation

Subjects
- Inclusion criteria: Dental students
- Participation was completely voluntary/ no identifiers
- 2-3 students per home visit

Families
- Recruited through community based program “Linking Hands”
- Inclusion criteria: has one child with a disability and attends one 2 hour training orientation
What is a Home Visit?

- **Intervention**
  - Students receive brief orientation
  - One **2 hour** home visit
  - Role reversal
  - Hear family’s story
  - Discuss non clinical issues/home modifications
  - Oral health education
  - Family receives $50 gift card
Grace
Innovation and Approach

- IRB approval (IRB #M22166-101)
- Grant: Scholars in Medicine Office at Harvard Medical School
Innovation and Approach

Data Collection
- Pre-assessment survey (orientation)
- Post-assessment survey and reflection

Data Analysis
- SPSS software used to analyze pre/post test data
- Content analysis to identify key themes in written reflections
Results

- Between October 2012 and April 2013
- 16 Harvard Dental Students and 6 families participated
  - Down Syndrome
  - Autism
  - Cerebral Palsy
Demographics of Student Participants

**Gender**
- Male: 6%
- Female: 94%

**Class Year**
- 1st: 12%
- 2nd: 19%
- 3rd: 25%
- 4th: 44%

**Have You Ever Participated in a Disabilities Awareness Program?**
- Yes: 60
- No: 40

**Do You Have a Friend or Relative with a SHCN?**
- Yes: 80
- No: 20
AADMD Meeting
Special Olympics
Are Students Satisfied with their Level of Preparation in Working with ISHCN?

- “pre-doctoral dental programs should include more courses that train students on providing care to ISHCN” generally + completely agreed = 100%

- “I have adequate academic training in communicating with these families” generally + completely disagreed = 100%
What Educational Approaches do Students Think Work Best to Train them to care for ISHCN?
Did Home Visits Change Students’ Attitudes or Perceptions of working with ISHCN?

As a dental student it can be frustrating to work with a child with a disability

It is much more difficult to provide dental care for an ISHCN than for the rest of the population

I feel comfortable explaining basic oral health instructions to a caregiver of a child with a disability

How often are ISHCN "confident"
Theme 1: Problems with health care providers

“In an effort to empathize, our doctor lied rather than admit that he can’t really understand personally what they are going through.”
Theme 2: Families adjust to cope with their child’s disability

“It was amazing being able to watch the family interact and see how much they had accomplished despite their child’s disability. Their home was full of life and love and was a testament to how passionate the parents were.”
Theme 3: Novel student experience

“The home visit was one of my most rewarding experiences in dental school. It challenged me to think about how our society defines "normal". Never be too quick to judge someone who, on the outside, may look or act a little "different". Instead, accept them for who they are, appreciate them for what they bring to the world, and allow ourselves to be humble - for we all have our own limitations.”

“I was really nervous as I have never been around ISHCN. It was such a pleasant surprise! The patient was absolutely hilarious, warm, friendly and willing to share lots of information about his medical history and dental experiences. He was such a lovely and light hearted person and so easy to relate to, that this experience really helped alleviate some of my fears of working with ISHCN.”
Home Visit Strengths

- See patients in natural environment
- Reflections
  - Learn from previous provider mistakes
  - Recognize abilities in a population they had previously perceived as disabled
  - Mitigate common fears
- 87.5% believed they should have the opportunity to see ISHCN in a non-clinical setting.
- 62.5% of students said home visits were helpful or very helpful in the pre-test versus 81.25% of students in the post-test.
Conclusions

- Students do not feel adequately trained to care for ISHCN
- The type of training matters: direct interactive/personal experiences
- Home Visits are a potential educational model to increase student exposure to working with ISHCN
Limitations

- Small sample size
- Social Desirability Bias
- Increasing the number of dentists or just reinforcing the resolve of those already interested?
  - “I would like to provide care to ISHCN in the future” generally + completely agreed = 94%
Questions for Discussion

- How to integrate special needs topics in an already crowded pre-doc curriculum?
- Is one home visit enough?
- Is there another model that is more effective?
- Sustainability
Treatment Days at Windsor

- A total of 59 pre-doctoral students ranging from 2nd-4th years volunteered for the treatment clinics.
- Two treatment events combined provided $12,285.22 of treatment with no out-of-pocket expense to the patient.
- No funding was provided, but the project was financially sustainable by charging Mass Health insurance whenever possible.
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References

THANK YOU!