

Dental Public Health Activity Descriptive Report

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SECTION I: PRACTICE OVERVIEW

Name of the Dental Public Health Activity:
Overcoming Obstacles to Oral Health: A Training Program for Caregivers of People with Disabilities and Frail Elders

Public Health Functions:

Assurance – Population-based Interventions
 Assurance – Building State and Community Capacity for Interventions

Healthy People 2020 Objectives:

OH-3 Reduce the proportion of adults with untreated dental decay
 OH-4 Reduce the proportion of adults who have ever had a permanent tooth extracted because of dental caries or periodontal disease
 OH-5 Reduce the proportion of adults aged 45 to 74 years with moderate or severe periodontitis

State:

DE

Federal Region:

Key Words for Searches:

disability, caregivers, caregiver education, caregiver training, elders, older adults, adults with disabilities,

Abstract:

The Center for Disabilities Studies (CDS) at the University of Delaware was contracted by the Delaware Department of Health and Social Services (DHSS) Division of Public Health (DPH) to plan, coordinate, and evaluate a training for dental professionals, direct support professionals (e.g. group home managers, team leaders, etc.) and family members. This training was designed to prepare them to successfully implement an oral hygiene routine for individuals with disabilities to improve dental home care for these individuals. The training curriculum used for the program was "Overcoming Obstacles to Oral Health," developed by the Dugoni School of Dentistry at the University of the Pacific. Two hundred ninety-one (291) individuals were trained between June 2013 and August 2014. This project was made possible with a grant from the DentaQuest Foundation.

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SECTION II: PRACTICE DESCRIPTION

History of the Practice:

The Center for Disabilities Studies (CDS) at the University of Delaware was contracted by the Delaware Department of Health and Social Services (DHSS) Division of Public Health (DPH) to plan, coordinate, and evaluate a training for dental professionals, direct support professionals (e.g. group home managers, team leaders, etc.) and family members designed to prepare them to successfully

implement an oral hygiene routine with individuals with disabilities to improve dental home care for these individuals.

Justification of the Practice:

The goal of the project was to increase the opportunities for access to dental care and reduce the prevalence of dental disease for persons with disabilities.

Oral health has been recognized as a key factor in improving the general health, self-esteem, communication, nutrition, and the quality of life for people with disabilities (Armour et al., 2008). Two leading causes of poor oral health—dental caries and periodontal disease—are mostly preventable (CDC, 2011). The complications associated with untreated dental caries and periodontal disease could result in poor appearance, pain, dysfunction, difficulty concentrating on daily tasks, or school or work absences (Benjamin, 2010; CDC, 2011). Delaware BRFSS data from 2012 reveal significant disparities in oral health care and tooth loss between adults with and without disabilities. Delawareans ages 18 and older with disabilities are less likely to have visited a dentist within the past year compared to Delawareans without disabilities. Delawareans ages 65 and older with disabilities are more likely than Delawareans without disabilities to have had all permanent teeth removed.

Inputs, Activities, Outputs and Outcomes of the Practice:

This project was made possible with a grant from the DentaQuest Foundation.

The training curriculum used for the program was selected by the Delaware Division of Public Health. "Overcoming Obstacles to Oral Health" was developed by the Dugoni School of Dentistry at the University of the Pacific, and is designed to engage direct caregivers and support professionals in maintaining the oral health of the people with disabilities for whom they are caring. Two hundred ninety-one (291) individuals were trained between June 2013 and August 2014. Participants attended a live training and receive a work book with course content and reference materials for future use. Click this link for the training program: [Dental.Pacific.edu Community Involvement Pacific Center for Special Care Education Overcoming Obstacles](http://Dental.Pacific.edu/Community%20Involvement/Pacific%20Center%20for%20Special%20Care%20Education/Overcoming%20Obstacles).

To deliver the training CDS recruited an oral health professional with a unique combination of skills: an educator, advocate for people with disabilities, and a dental hygienist by training. She has spent the greater part of her dental hygiene career working with people with disabilities. She serves as adjunct faculty in the dental hygiene program at a regional community college. As an experienced educator, she has a high level of teaching skill and ability to effectively deliver the training to the target audience, as well as the ability to speak from experience to address questions and suggest strategies for addressing problem situations.

The project was conducted in three phases. Preliminary planning for the logistics of the trainings was conducted in July-August 2012. The first series of trainings, June to August 2013, included the delivery and coordination of thirteen training sessions. An additional ten trainings were held from June to August 2014. The trainings were promoted through the DHSS, DPH, and CDS partner networks.

Evolution of the training

The first five sessions, in June 2013, were four-hour trainings held at local community college campuses and public libraries, and included a break with a meal. Process evaluation results from observations and satisfaction surveys indicated that the four-hour trainings were too lengthy for the target population. Consequently, adjustments were made to the training, and it was shortened to two hours in length. Seventy-three participants attended the June 2013 trainings.

The remaining 2013 trainings were two hours long and were held in two state hospitals, primarily for staff, over three days. Ninety-six participants attended the August 2013 trainings.

A total of one hundred twenty-two individuals completed the training in 2014. Eighty-one individuals completed the training through six sessions in June of 2014 and forty-one individuals completed the training through four sessions in August of 2014.

Evaluations of the training have been positive. The evaluation included two components. The first evaluation measure used was a brief survey that captured participants’ opinions about the presentation, the speaker, the training materials, and the usefulness of the training content. The second was a pre-test and post-test to assess the increase in knowledge for participants.

Overall impressions of the workshop were positive. Evaluations indicated that:

- 85% agreed that the workshop was well organized.
- 84% agreed that the speaker was knowledgeable on the topic.
- 82% agreed that the materials were provided in a format they could use.
- 84% agreed that they could use what they learned in this workshop in their work of personal life.

The pre- and post-tests demonstrated that 62% of the attendees increased their knowledge, 24% had no change, and 14% showed a decrease in knowledge.

As a result of this project, a decision was made to assess current oral health practices in state-licensed residential facilities, develop and disseminate a best practice tool kit, and evaluate the impact of the toolkit on adoption of oral health best practices. This project is currently underway.

Activities will include:

1. Assessment (baseline survey) of current oral health practices in the estimated more than one hundred residential facilities licensed in Delaware to care for individuals with disabilities.
2. Research and summarize current best practices and state policies on this topic, including recommendations for adoption in Delaware.
3. Development and dissemination of an oral health best practice guideline tool kit for facilities caring for individuals with disabilities.
4. Assessment (follow-up survey) of the impact of the tool kit on adoption of oral health best practices.

Budget Estimates and Formulas of the Practice:

The key cost components of this project were staff time for the trainer and project coordinator, the cost of travel to training sites, and materials, specifically the workbook that each participant received during the training. The budget summary below covers the full cost of several cycles of training between the period of June 2013 and August 2014. During that time period, the training and logistics evolved to a more efficient and economical model for delivery of the training. Shifts that resulted in a more streamlined training include: utilizing the existing state health department training system for promotion and venues; printing the workbook directly instead of purchasing from the curriculum developer; and creating a modified, shorter training.

| Budget Category | Amount |
|---|-----------|
| Personnel | \$ 23,486 |
| Trainer / Facilitator | \$5,000 |
| Travel | \$2,878 |
| Materials (workbooks, agendas, etc.) | \$12,773 |
| Indirect costs (varied from 12% to 25% over contract cycle) | \$10,476 |
| TOTAL | \$54,613 |

Lessons Learned and/or Plans for Improvement:

The process evaluation of the Overcoming Obstacles to Oral Health trainings allowed project coordinators and facilitators to determine that the four-hour trainings were too lengthy, and the locations were not convenient for the target audience. The two-hour session was a more efficient way to deliver the training. There is some sacrifice in content and fewer opportunities for discussion, but longer sessions make it difficult for participants to find time to attend. The two-hour sessions also showed greater impact in terms of knowledge gained.

The continuing education system for certified nursing assistants in Delaware is based on attendance, not demonstrated increase in knowledge or skills. While we observed many participants engaged and asking questions about providing care for patients that they care for, some participants focused more on obtaining credits than new skills. Our recommendation for future trainings (and perhaps the credit system in general) would be to tie earned credit to a demonstrated increase in knowledge (e.g., an 80% correct on the post-test).

The ongoing interest in the trainings--particularly among certified nursing assistants working in hospitals, residential facilities and long-term care settings--has prompted the Delaware Division of Developmental Disabilities Services and the Division of Services for Aging and Adults with Disabilities to request trainings for their staff. The cross-agency interest in this program promotes the sustainability of this training as it creates the potential for diverse funding streams to support the project.

Another strength of the project is the relatively low cost. With an established curriculum and work books available for reprinting, training costs can be contained. Delaware tapped into the existing training network for the state health department and used their facilities and promotion mechanisms. In addition to coordinator time, costs included trainer time and travel, and purchase or reproduction of the curriculum workbook.

One activity that has evolved from this project is the development of a best practice toolkit for administrators in long-term care facilities. Many participants in the Overcoming Obstacles training reported that while the skills they learned were useful, there was not a system in place in their work places that supported routine oral hygiene for residents. This new project will assess current oral health practice in state-licensed residential facilities through a survey, develop and disseminate a best practice tool kit, and evaluate the impact of the toolkit on adoption of oral health best practices.

Considering that each participant will return to their jobs and provide assistance with activities of daily living, routine oral health care and maintenance for persons with disabilities, the cost of this program is worthwhile and reasonable when compared to the benefits.

Available Information Resources:

For information on the curriculum used in this training, please contact the University of the Pacific Dugoni School of Dentistry ([http://dental.pacific.edu/Community_Involvement/Pacific_Center_for_Special_Care_\(PCSC\)/Education/_Overcoming_Obstacles.html](http://dental.pacific.edu/Community_Involvement/Pacific_Center_for_Special_Care_(PCSC)/Education/_Overcoming_Obstacles.html)).

SECTION III: PRACTICE EVALUATION INFORMATION

Impact/Effectiveness

How has the practice demonstrated impact, applicability, and benefits to the oral health care and well-being of certain populations or communities (i.e., reference scientific evidence, outcomes of the practice and/or evaluation results)?

Evaluations of the trainings were highly positive. The evaluation included two components. The first evaluation measure used was a brief survey that captured participants' opinions about the presentation, the speaker, the training materials, and the usefulness of the training content. The second was a pre- and post-test to assess the increase in knowledge. Participants were asked to complete a pre-test survey prior to the training and then to retest at the completion of the training. Please note that for purposes of this report, the evaluation summaries include both versions of the training.

Participant opinions of the training

The following are summative results of the participant opinions regarding the presentation, speaker, training materials, and usefulness of the training content. Participant evaluations indicate that:

- 98% agreed that the workshop was well organized.
- 99% of agreed that the speaker was knowledgeable on the topic.
- 92% agreed that the materials were provided in a format they could use.
- 92% agreed that they could use what they learned in this workshop in their work of personal life.

Participant change in knowledge

In order to assess the impact of the training on participant knowledge, we asked participants to complete a pre-test survey prior to the training and then to retest at the completion of the training.

The test for the June 2013 four-hour sessions was a 35 item, multiple-choice survey drawn directly from the curriculum and administered on paper at the training location. The test for the remaining condensed two-hour sessions was a 30 item, multiple-choice survey. The condensed two-hour session resulted in greater increase in knowledge, 68% for the two-hour sessions vs. 47% for the four-hour sessions. Despite efforts to ensure that both pre-test and post-test were completed, only 222 of the 291 participants completed both tests. Sixty-two percent of all participants demonstrated an increase in knowledge. The table below summarizes the change in knowledge for all participants.

SUMMARY OF PARTICIPANT PRE-TEST AND POST-TEST CHANGE IN KNOWLEDGE

| POST-TEST RESULTS | INCREASE IN KNOWLEDGE | NO CHANGE | DECREASE IN KNOWLEDGE |
|--------------------------|------------------------------|------------------|------------------------------|
| 222 participants | 137 (62%) | 53 (24%) | 32 (14%) |

It should be noted that the continuing education credit system for nursing assistants in Delaware is based only on attendance (signing in at training) and does not require a "passing grade" for credits to be issued. Training organizers believe this mechanism impacted the completion of post -test evaluations.

Efficiency

How has the practice demonstrated cost and resource efficiency where expenses are appropriate to benefits? How has the practice demonstrated realistic and reasonable staffing and time requirements? Provide unit cost analysis or cost-benefit analysis if appropriate.

This project has worked diligently to increase efficiency over the course of the two years of trainings. Based on feedback from participants, we condensed the original four-hour training to two hours and offered continuing education credits to participants. We also worked directly with health department training staff to utilize their training promotion and registration system and reduce project staff time on these tasks. In addition, originally we purchased the training workbooks directly from the curriculum developer at \$25 per workbook but then negotiated the option to print them directly, reducing our cost to approximately \$12 per workbook.

Demonstrated Sustainability

How has the practice showed sustainable benefits and/or how has the practice been sustainable within populations/communities and between states/territories? What mechanisms have been built into the practice to assure sustainability?

The Center for Disabilities Studies is in the process of exploring the potential for delivering this training using a web-based format, either via webinar or through an online, on-demand training module. Making this training available online has the potential for increasing sustainability by reducing costs and increasing the reach of the training.

Collaboration/Integration

How has the practice built effective partnerships/collaborations among various organizations and integrated oral health with other health projects and issues? What are the traditional, non-traditional, public and private partnerships/collaborations established by the practice for integration, effectiveness, efficiency and sustainability?

This project helped to facilitate a collaboration between the University of Delaware Center for Disabilities Studies (CDS), and various divisions within the Department of Health and Social Services (DHSS), including the Delaware Division of Public Health. This partnership has opened up dialogue between CDS and DHSS, and has uncovered ways in which the strengths of each agency complement each other in the development of health promotion activities for people with disabilities.

Objectives/Rationale

How has the practice addressed HP 2020 objectives, met the National Call to Action to Promote Oral Health, and/or built basic infrastructure and capacity for state/territorial/community oral health programs?

A primary objective of Healthy People 2020 is to prevent and control craniofacial diseases, as well as to increase preventive oral health services. Another primary goal of Healthy People 2020 is to improve the health of people with disabilities. With oral health disparities representing a significant health problem for this population, this program plays a vital role in building capacity within the workforce to promote the oral health of people with disabilities.