Adults with developmental disabilities need more than just better access to oral-health care

Report shows vulnerable population continues to have significant dental disease

Despite a policy focus on expanding access to care for adults with developmental disabilities, this vulnerable population continues to have significant dental disease. In the October issue of The Journal of the American Dental Association, researchers from Tufts University School of Medicine and Tufts University School of Dental Medicine report on the first large-scale survey to investigate factors influencing at-home oral care provided by caregivers to adults with developmental disabilities.

The study findings suggest that, in addition to addressing access to care, policy initiatives must improve support for caregivers. “While access to dental care is a necessary component of good oral health, it is not enough to guarantee positive oral health outcomes in this vulnerable population. Our findings highlight the need for additional training and support for caregivers in promoting oral health,” said principal investigator and corresponding author Paula M. Minihan, PhD, MPH, an assistant professor in the department of public health and community medicine at Tufts University School of Medicine.

The research team’s landmark 2012 study found that access to specialized dental care alone was not sufficient to meet the substantial oral health needs of adults with developmental disabilities. People with developmental disabilities have a high prevalence of cavities, gum disease and tooth loss. If a person with a developmental disability cannot independently brush or floss, caregivers provide assistance and support.

In the new study, the researchers surveyed 808 caregivers (family caregivers as well as paid caregivers) with extensive experience providing care to adults with developmental disabilities (DD) in either family homes or supervised residences in Massachusetts. Survey results revealed that:

- 85 percent of adults with DD received barriers protection is critical in
- New radicular pivot line: direct
- R-dental’s METAL-BITE earns awards
- Using DrQuickLook SD for an implant presentation
- First Fridays provide narrow-body implant training at the Dentatus implant Center in the heart of New York City
- Orascoptic and Surgical Acuity unified under a single Orascoptic brand
- Yankee Dental Congress exhibit hall filled with C.E. options, Jan. 29 through Feb. 1 in Boston
- Toronto Academy of Dentistry Winter Clinic: Same time, new place
- Experienced and novice users alike are invited to the Academy of Microscope Enhanced Dentistry annual meeting and scientific session, Nov. 14–16 in Baltimore
- YankeDent Congress exhibit hall filled with C.E. options, Jan. 29 through Feb. 1 in Boston
- Earn as many as 18 hours of C.E. credit through sessions presented by leading oral implantology experts from around the world — and take advantage of a comprehensive implant-oriented exhibit hall — at the 2014 Annual Educational Conference of the American Academy of Implant Dentistry, Nov. 5–8, at the Hyatt Regency Orlando (formerly the Peabody Hotel) in Orlando. Photo/Provided by www.dreamstime.com
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A novel dental restorative material that should make life easier for dental care experts and their patients, which is based on technology developed by a team of University of Colorado Boulder engineers, was recently unveiled by the 3M Company.

Based on work by a team led by professor Christopher Bowman of CU-Boulder's chemical and biological engineering department, a team from 3M ESPE developed the new polymer, which makes it possible for dentists to fill cavities with a single application that is then cured with light to achieve the desired strength and shape. Currently it can take up to four applications of polymer material, with each layer requiring an individual light-curing procedure, to fill a single, deep-tooth cavity, said Bowman.

The new restorative material also eliminates expensive dispensing devices, according to 3M ESPE, part of 3M Health, a business group of 3M based in St. Paul, Minn. And unlike some composite cavity-filling materials used today that can shrink or even leak at the surface of a tooth over time, the new material has been shown to have lower stress and to be more wear resistant over time.

The innovative technology development effort between CU-Boulder and 3M ESPE included the financial support of the National Institutes of Health. The new 3M restorative material, primarily for posterior teeth, is known as Filek Bulk Fill.

“Our team is excited about seeing this process come to fruition,” said Bowman. “Hopefully there are other applications of this technology in other fields on the horizon.”

The technology was licensed through the CU Technology Transfer Office.

(Sources: CU-Boulder, 3M ESPE)

Polymer fills cavities with a single application that is then light cured

Novel restorative material developed at CU-Boulder

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Oral care to prevent dental disease.

Oral health disparities among people with developmental disabilities are a significant public health issue,” said senior author Avaiva Must, PhD, professor and chair of the department of public health and community medicine at Tufts University School of Medicine. “We were surprised to find that, while 71.6 percent of paid caregivers who participated in our study reported having received formal group training in oral health care, only 6.4 percent of family caregivers reported the same. Given the vital role that caregivers play in promoting good oral health in this population, we need to ensure that all receive the guidance and support they need to be effective.

Co-principal investigator John Morgan, DDS, an associate professor in the department of public health and community service at Tufts University School of Dental Medicine, added, “In addition to the effective use of fluoridated toothpaste and the application of topical fluorides, policy makers should also consider establishing an organized system that provides caregivers, including family caregivers, with information and support.”

The caregivers who participated in this study visited the Tufts Dental Facilities for Persons with Special Needs (TDF), a network of clinics that have provided comprehensive oral health care to adults and children with developmental disabilities throughout Massachusetts since 1976. Through a partnership between Tufts University School of Dental Medicine and the state’s Department of Developmental Services and Department of Public Health, this nationally recognized program serves more than 7,000 patients annually and supports education and research to improve the oral health of this population, which is at high risk for oral disease.

Some limitations to the study

The authors acknowledged certain limitations in their study. The TDF clinics are designed for and financially accessible to people with developmental disabilities in Massachusetts, and many caregivers and patients have developed long-term relationships with dental professionals at the clinics. The study authors recognize that caregivers in this survey may not represent the experiences of caregivers more broadly. Caregivers who participated in the survey may also be particularly interested in oral home care and the information they provided reflects self-reports. In addition, the survey’s focus was on the occurrence of oral home care practices and not on their quality.

Caregivers who would like tips on how to help people with developmental disabilities with oral care can visit “Dental Care Every Day: A Caregiver’s Guide,” a resource published by the National Institute of Dental and Craniofacial Research.

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