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A strong relationship exists between dental and general health for older adults, yet a dental specialty in geriatrics in the United States is only starting to emerge and is not yet recognized by the American Dental Association (ADA) (ADA, 2014). By 2030, it is expected that there will be over 72 million adults 65 years and older in the United States, making up nearly 20% of the population (U.S. Census Bureau, 2013). The current percent of the population aged 65+ is listed the following table:

2013 Population % 65 years +	
United States	14.1%
Texas	11.2%
Bandera County	23.9%
Bexar County	11.0%
Comal County	17.0%
Kendall County	18.4%

(U.S. Census Bureau, 2014b)

Dental Health Challenges

Individuals facing oral health issues frequently face other medical illnesses stemming from a weakened immune system. Several dental conditions are common for older adults with poor oral health. These conditions are often progressive and cumulative, further complicating care:

- Edentulousness (loss of all natural teeth)
- Facial Pain or discomfort
- Oral Cancer
- Caries (tooth decay/cavities)
- Periodontal issues
- Denture-related conditions
- Xerostomia (dry mouth/lowered saliva)

(Petersen, Kandelman, Arpin, and Ogawa, 2010; World Health Organization [WHO], 2012)

“Among the negative impacts on daily life of poor oral health are reduced chewing performance, constrained food choice, weight loss, impaired communication, low self-esteem and well-being” (Petersen et al., 2010, p.258).

Factors Contributing to Dental Health Challenges

Social and personal choices, medical complications, and physical limitations all contribute to dental health challenges in the lives of older adults. Common risk factors associated with poor dental health include chronic illness, dietary habits, level of poverty, tobacco use, medications, genetic predisposition, excessive consumption of alcohol, disability, lack of medical/dental health knowledge, and hygiene standards (WHO, 2012). Dental care within the senior population is tremendously affected by social status, as seniors are high risk for having low income and disabilities. The Census Bureau estimates that 11.4% of persons over 65 years live below the poverty level in Bexar County; 8.1% in Bandera County, 6.4% in Comal County and 7.4% in Kendall County (U.S. Census Bureau, 2014a). In 2012, 67.5% of those over 65 who experienced difficulty receiving needed dental care reported that they couldn’t afford it (Agency for Healthcare Research and Quality [AHRQ], 2014c). Dental care is often a low priority for the elderly typically due to a combination of: negative attitudes toward oral health, a fear of violence from strangers, a low level of income, and a lack of social support.

The greater prevalence of chronic medical conditions in seniors, such as cancer, diabetes,

and osteoporosis also impacts oral health and proper oral maintenance and functionality (Petersen et al., 2010). Medications often become large contributors to dental health challenges. Medications prescribed for common ailments can alter the ability to taste and smell, and may also increase dryness of mouth, which often compromises oral health (WHO, 2012).

This places older adults in greater peril, for they are more likely to take over-the-counter or prescription drugs for varying medical reasons. Undoubtedly, general and oral health are inter-related. Existing medical conditions may increase the risk of dental problems, however poor dental health often increases vulnerability to new medical issues. For example, pneumonia-causing bacteria can exist in dental plaque, and residents in nursing homes with poor oral care have significantly higher rates of pneumonia than those with proper oral care (Texas Dental Association [TDA], 2008).

Periodontal disease (chronic inflammation of the tissues supporting the teeth) is a serious complication of diabetes that is linked to poor glycemic control and glucose intolerance. It has also been found that people with periodontitis “have higher long-term blood sugar levels and might be at a higher risk of developing type 2 diabetes” (ADA, 2013)

Edentulousness, which affected 25% of United States seniors in 2011 (Centers for Disease Control and Prevention [CDC], 2011), may also increase the risk for periodontitis and affect body weight, diet adequacy, and food enjoyment due to lost chewing efficiency. Research has been dedicated to understanding the relationship between an individual’s diet/nutrition and oral health, as the ability to meet nutritional needs is severely inhibited with poor oral health. Essential to maintaining proper dental care is a balanced diet, which becomes difficult for older adults who have altered food choices to compensate for tooth loss or ill-fitting dentures (Petersen et al., 2010).

Physical limitations are also a major contributing factor to dental health challenges. Seniors may have an impaired ability to access dental care and practice proper oral care due to issues related to aging. Practicing and accessing

proper dental care is even more complicated for institutionalized, homebound, or disabled seniors. Many caregivers lack the necessary time and/or training to dispense adequate oral care to seniors. Lack of equipment to treat clients in nursing facilities as well as lack of transportation in many cases does not allow for routine dentist visits (TDA, 2008).

Financial Burden of Dental Care

In 2012 almost \$85 billion was spent by individuals on dental services, 48.5% of which was out-of-pocket payments (AHRQ, 2014a). Many older adults operate with minimal income either from employment or government aid, and often experience difficulty in meeting dental care expenses, as in many cases they have lost the benefits of employer-based dental insurance. A recent survey indicated that seniors over age 65 were responsible for over 70% of their dental expenses, with private insurance only covering approximately 22% of the cost (AHRQ, 2014b).

For seniors with basic health coverage, including Medicare and Medicaid, little or no dental care is provided. Medicare does not cover routine dental care, it only provides for limited emergency dental service. Of the 47 states that provide Medicaid dental benefits, only 12 provide extensive dental coverage. Cleanings and basic screenings are not covered. Basic preventive procedures are therefore often under-utilized. Texas currently offers only emergency dental care to adult Medicaid recipients (Yarbrough, Vujicic, and Nasseh, 2014). Total expenses for general dental visits of persons 65 and older were \$14.7 billion in 2012 (AHRQ, 2014b). The vast majority of those visits were paid out-of-pocket:

Distribution of Expenses by Source of Payment: United States, 2012, General Dental Visits Only (65+)	
Out-of Pocket	70.4%
Private Insurance	22.2%
Medicaid	0.9%
Medicare	4.2%
Other Insurance	2.3%

(AHRQ, 2014b)

“Among adults aged 65 and over, 54% of adults with private health care coverage had visited a dentist or other dental health professional within the past 6 months, compared with 41% of adults

who had only Medicare and 25% who had Medicare and Medicaid” (CDC, 2014). The most recent statistics for Texas include:

% of Texans Accessing Dental Care in 2012		
	Visited Dentist	Not Visiting Dentist
Texas	58.8%	41.2%
White	66.4%	33.6%
Black	54.7%	45.3%
Hispanic	48.8%	51.2%
65+ Years	61.2%	38.8%

% of Texans Accessing Dental Care in 2012			
Income	Visited	Not Visiting	Have any Insurance
<\$15,000	37%	63.1%	44.9%
\$15,000-\$24,999	44.2%	55.8%	45.0%
\$25,000-\$34,999	54.2%	45.8%	61.8%
\$35,000-49,999	60.6%	39.4%	77.9%
\$50,000+	75.3%	24.7%	91.4%

(NCCD, n.d)

Availability of Dental Care in Texas

- 3 Dental schools
- 12,317 licensed dentists
- 21 Dental hygiene schools
- 11,407 licensed hygienists
- 48 counties have no dentist
- In 2013, there was a supply-ratio of 36.1 general dentists per 100,000 residents
- 147 Texas counties were designated as Dental Health Professional Shortage Areas (HPSA) in 2014; Bexar County is classified as a partial-county area, demonstrating certain portions of the county do not meet the required threshold due to shortages in dental providers
- 68 community-based low-income health centers that provide dental services
- 79.6% of Texas residents received fluoridated water in 2012

(Texas Department of State Health Services, 2014; CDC, 2013; U.S. Department of Health & Human Services, Health Resources and Services Administration, 2014a&b)

- CommuniCare Health Centers provide comprehensive low or no-cost dental services at three San Antonio locations:

- CommuniCare Health Centers- West Campus
- Communicare Health Centers- East Campus
- Communicare Health Centers- Northwest

(CommuniCare, 2014)

- CentroMed provides dental services at six locations:

- CentroMed House of Hope Dental Clinic (New Braunfels)
- CentroMed Noemi Galvan Eling Clinic
- CentroMed Palo Alto Clinic
- CentroMed South Park Dental Clinic
- CentroMed Southside Medical

(CentroMed, 2014)

- San Antonio Christian Dental Clinic provides dental services at the Haven for Hope campus

(San Antonio Christian Dental Clinic, n.d.)

- Daughters of Charity Services provides dental services in south Bexar County at its LaMision Family Health Care center

(Daughters of Charity Services, 2013)

Recommendations

Complications that arise with living longer including social, medical, and physical limitations and an increased financial burden result in the need to alter how dental care to the elderly is practiced. The Centers for Disease Control and Prevention (2011) call for increased partnership between public and private organizations and health professionals to address and remove barriers to dental care, as well as enhance community awareness of current oral health issues. The important role of encouraging and providing incentives for dentists to practice in underserved areas or service low-income individuals has been deemed a key component in addressing oral health issues among seniors (TDA, 2008). Barriers to oral health care for the elderly are considerable. Proper oral health is significantly associated with overall quality of life for older individuals. Improving access to geriatric dental care is a pressing health priority and will improve senior citizens’ nutrition, general health, and overall sense of self-esteem.

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