

**Dental College of Georgia teams up with Richmond County Health Department to help underserved patients**

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**ABSTRACT**

**Background:** The Central Savannah River Area remains, for many of the poor, a dental health care shortage area. Each year, from December to March, fourth-year dental students perform outreach with faculty to search the community for unmet dental needs, including dental caries and periodontal disease, the treatment of which is required for the Central Regional Dental Testing Service (CRDTS) Exam, the dental licensing examination.

**Methods:** Fourth year students at the Augusta University Dental College of Georgia recruit patients for free dental pre-screenings at health fairs, community centers, the Barnyard Flea Market, and the dental school. Persons with periodontitis are invited for further screenings at the dental school where they receive a free dental examination and dental radiographs. Many of these patients present with other dental needs requiring restorations, root canals, and extractions, conditions that potentially could disqualify them from receiving periodontal therapy during CRDTS. Through a collaborative effort with the Richmond County Health Department Dental Clinic, these patients receive the treatment for their acute dental needs, while also qualifying them for the periodontics portion of the exam.

**Results:** Regardless of their qualification status for boards, the program provides referrals for patients to the Dental College of Georgia or the Richmond County Health Department, gives patients a chance to be informed about their oral health status, and gives qualifying patients the potential to receive discounted or even free dental work. The efforts of the senior dental students represent an oral public health service effective in achieving improvements in periodontal outcomes within our community.

**Conclusions:** This program not only benefits the future dentists of Georgia by helping provide licensing board requirements, it also introduces dental students to a more diverse population and provides exposure to public health outreach. In addition, this program offers a valuable service to underserved populations who would otherwise have limited or no access to dental care.

**Key words:** Dental public health, CRDTS, dental outreach, periodontitis, dental education

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**INTRODUCTION**

Oral diseases heavily impair the quality of life and general well-being of a significant percentage of the population. Dental decay and periodontal disease are two of the most prevalent chronic diseases affecting individuals in the United States and globally (Dumitrescu, 2016; Edelstein, 2002). The burden of these diseases falls disproportionately on patients who reside in rural areas, live at or near the federal poverty level, and/or who have a minority background (Mertz and O'Neil, 2002). While children and adolescents are at the highest risk of dental decay and do suffer from lack of access to care, there is significantly more outreach and funding dedicated to children's oral health than to adult and geriatric oral health (Patrick, et al., 2006).

Oral health is not limited to managing dental decay. The health of the supporting structures of the teeth -- the alveolar bone and gingiva -- is just as important when determining the long term prognosis of a patient's dentition

and the relationship between oral health and systemic health (US & NIDCR, 2000). Periodontal disease, a progressive inflammatory condition that results in loss of bone, gingival tissue attachment, and eventually tooth loss, has been linked to many systemic conditions including cardiovascular disease, obesity, and diabetes (Petersen and Ogawa, 2012).

The impact of oral health on an individual's quality of life should also be emphasized. According to Fisher-Owens, et al., "Oral health not only is integral to systemic health, but also affects people's productivity and quality of life" (2008, p. 404). Further, the "inability to obtain adequate dental care has a profound effect on general psychosocial and medical health" (Flaer, et al., 2010, p. 105). Access to health care should be a fundamental right for all.

**METHODS**

This informal outreach program developed by the students at the Augusta University Dental College of Georgia serves

some of Richmond and Columbia Counties' most dentally underserved populations, where they annually examine over 200 patients with periodontal conditions. The current screening program recruits patients from the Barnyard Flea Market in Richmond County, Georgia, as well as local health fairs, community centers, and other venues in the Central Savannah River Area. The Dental College of Georgia has had a relationship with the Barnyard Flea Market since 2005. Dr. James Barenie proposed the initial screening program as a way of providing students experience with more diverse populations and encouraging community outreach, and was operated year round with dental students from each class. The use of the booth is donated to the dental school, and as long as there is a licensed faculty member present, students are able to offer free oral examinations and provide people with information about becoming patients at the dental school. Each year in preparation for the CRDTS (Central Regional Dental Testing Service) Exam, senior dental students staff the flea market under the supervision of Dr. Jamie De Stefano during December to March in order to recruit patients for the board examination. Individuals who qualify and decide to participate as patients are further screened at the dental school, where they receive a blood pressure check with complete review of medical and dental history, a head and neck examination, an intraoral exam, a periodontal examination, diagnosis of dental decay, and free diagnostic radiographs, as indicated.

The CRDTS Exam (or simply "CRDTS"), the only dental licensing examination recognized by the Georgia Board of Dentistry, consists of two portions, the Restorative Examination and the Periodontal Examination. These examinations assess the student's ability to evaluate the medical history of a patient, perform a head and neck examination, and successfully complete a scaling and root planing procedure as well as two different types of dental restorations. CRDTS has strict criteria that patients must meet in order to be eligible to participate in the examination. Specifically, periodontal examination patients must have no severe decay, periapical (endodontic) lesions, or "hopeless teeth." The patient should have two teeth within the quadrant with periodontal probing depths of 5 to 6mm, and 12 sites of clinically detectable calculus, palpable by dental explorer as bumps, jumps, and/or visible as ledges of calculus on bitewing radiographs. Three of those 12 sites of calculus must be on molars. The restorative examination requirements involve finding dental decay of a certain size and shape on both a posterior and anterior tooth. If patients meet the periodontal criteria, but require prior dental therapy to qualify for the exam, such as restorations, simple and surgical extractions, or even high blood pressure, the patient is sent to the Richmond County Health Department for needed care. A collaboration with the Dental Clinic of the Richmond County Health Department, under the guidance of Dr. Blake Collins, was created for this purpose. The senior students have raised funds to support this program through donations to cover the cost of all needed acute dental therapy, plus they assist Dr. Collins in performing the

procedures at the DPH clinic. If patients do not qualify for the board exam, they are given information about community resources available to them, such as the Richmond County Health Department Dental Clinic, the emergency clinic at the dental school, and the process of becoming a patient at the dental school. If patients do qualify for boards, they will receive treatment the day of the examination at no cost, and also receive the satisfaction of seeing their dental student complete this difficult exam.

## DISCUSSION AND CONCLUSIONS

Even though the state's only dental school is located in Richmond County, Georgia, the area remains, for many, a dental health professional shortage area (Sweeney, 2016). Many individuals in the area lack financial resources to seek dental treatment and also may experience other impediments to receiving dental care, such as lack of transportation or language barriers (Sweeney, 2016). The current program is limited in scope, but it provides a much-needed secondary prevention mechanism for periodontal disease, and some patients affected by inequalities in their social circumstance receive free dental care.

Another key factor of this program is the educational component. It continues introducing dental students to public health outreach and community intervention, provides exposure to a more diverse patient population, and offers an opportunity to hone diagnostic skills.

Even though the program currently is a limited safety net for certain patients, ideally more funding will be secured and the program will return to providing screenings on weekends year-round in order to better serve the community.

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