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### An Exploration of Low-income Dental Services in the Tri-Cities

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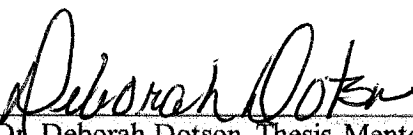
An Exploration of Low-income Dental Services in the Tri-Cities

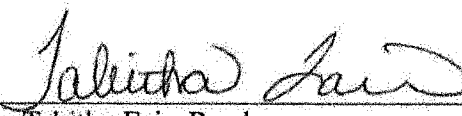
By

Macie Proffitt

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## **Background**

Dental care has great importance in the overall health of every individual. Many do not realize the effect oral health plays in their overall health and many areas in the United States do not have access to the dental care needed to obtain proper healthcare standards. In many of these areas, such as the Appalachian region, dental services for low-income citizens are limited. Therefore, many people's teeth are left untreated or simply must be extracted, sometimes by multiple teeth at a time. According to the World Health Organization (WHO) (2020), nearly 3.5 billion people are affected by oral health diseases worldwide. In the Northeast Tennessee region, these dental services are severely limited. Washington County and Hawkins County of Northeast Tennessee are specific underserved areas in the Appalachian region. According to data from the Health Resources and Service Area website, both Washington and Hawkins County have a "Health Professional Shortage Area" score of 25 (HRSA, n.d.). In the state of Tennessee, there are more dental profession shortages (143) than mental health (69) and primary care (133) shortages (HRSA, n.d.). This shows that dental care in this region is severely lacking.

Proper dental care has a tremendous effect on individual's overall health. If proper dental care is not received, it will negatively affect one's health (Gavaza et al., 2017). Good dental hygiene starts with proper education. Many people do not understand the effects that poor oral hygiene can have. This is one reason many people do not receive dental care. Therefore, they must become informed of proper oral hygiene and what can happen if they do not get regular cleanings and treatment. While this a problem on a global scale, these issues are prominent in the Appalachian region. There is a large stereotype around the dental care of Appalachians because of their lack of knowledge to the subject and more importantly their lack of access to care. Low-income families of the Tri-Cities region of East Tennessee do not have the same access to dental

care as higher income families. Therefore, the purpose of this project is to explore the services for low-income residents of upper East Tennessee (the Tri-Cities region) to analyze if the services being provided are utilized, if they are meeting the needs of the individuals that are utilizing the service, and if there are barriers for access to dental care for low-income East Tennesseans.

### **Literature Review**

Dental disparities are prevalent in the United States, but especially in the Appalachian region (Martin et al., 2017). People in this region are suffering due to a lack of dental care as is evidenced by the long lines of people who show up for extractions whenever the Rural Area Medical clinic visits the region. While many people are under the assumption that oral health only affects the mouth, they are wrong. There are complex links between oral health and systemic health. Many health problems such as cardiovascular disease, HIV/AIDS, stroke, bacterial pneumonia, and diabetes can be linked to periodontal disease (Gavaza et al., 2017). The side effects of not paying attention to standards of oral health are severe. Oral health is a main factor in maintaining overall health and well-being for all people; it affects quality of life (Orozco et al., 2019). It is unfair that people do not have equal access to dental care because oral health ultimately affects systemic health in numerous ways.

There are many contributing factors to dental disparities in the United States. Many low-income adults are suffering because of poverty, poor living conditions, a lack of understanding in oral health, and a lack of government funding (MacDougall, 2016). It is unfair that these people are put at a disadvantage for their health because they do not have the same access as the insured, educated, or wealthy. Everyone should have an equal access to proper healthcare. In the United States, dental insurance is not included in basic health insurance. This is one of the biggest

disadvantages that Americans face with dental care. Out-of-pocket dental care is often way too expensive for families to pay. Therefore, they result in suffering or visiting a safety-net clinic that can provide limited services. According to MacDougall (2016), “even as some gain coverage through state Medicaid expansions, it is estimated that only a quarter of states will offer comprehensive dental coverage” (p. 208). This goes to show that while we do have some form of federal insurance coverage in the United States, it is not adequately covering all low-income families to receive the proper dental care. Because of these factors, people are put at an unfair disadvantage to receive proper care. These barriers that keep people from receiving the proper care will not be improved until the nation puts a greater value on oral health.

The Appalachian region is no exception. Focusing on the Tri-Cities region of East Tennessee, dental disparities are as prominent as ever. People in this region are often uneducated on the topic of oral health, do not have the transportation to get to appointments, or do not have insurance (D. Dotson, personal communication, June 2020). Studies have shown that people from the Appalachian region less likely to attend scheduled dental visits (Zhou et al., 2021). This supports the idea that a lot of people from this region do not have a way to get to appointments. The dental disparities in the Appalachian region need to be eliminated so that proper dental care can be received (Chen et al., 2019). The dental problems safety-net dental clinics are seeing are extreme (American Dental Association, 2011). This goes to show that many people are only using the safety-net clinics after they have a dental problem and not for preventive services. The dental safety-net clinics in the Tri-Cities region provide basic dental exams, X-rays, fillings, extractions, cleanings, dentures, and partials for the uninsured. While these are great, oftentimes, the services offered are not enough to meet complex or advanced needs. When patients show up at safety net clinics with problems more severe than the clinic can address, the patient has limited

options. This can require the patients paying out-of-pocket at another clinic that does offer the services they need, continuing to live with the problem, or resorting to the only affordable service the clinic can provide, which is often extraction. This means teeth are being lost that could have been saved if proper care could have been provided in an affordable and timely manner. Therefore, ways for low-income people of the Tri-Cities region of East Tennessee to receive preventative dental care need to be examined.

### **Methods**

This study was conducted utilizing a survey (see attachment A) with the clinic directors for three of the four safety-net dental clinics in the Tri-Cities: Friends in Need, Healing Hands, and Keystone Dental Clinic. Attempts were made to include the fourth, Johnson City Community Health Center, but were unsuccessful. A series of open-ended questions were asked. The survey included questions concerning the number of patients seen in a year; number of dental appointments filled in a week; if they have volunteer, full-time, or part-time dentists; and if they would expand their dental services if they could; and reasons a patient could be turned away. This was an exploratory study resulting in descriptive statistics. For confidentiality, the clinics interviewed are referred to as “Clinic A,” Clinic “B,” and “Clinic C”.

### **Potential Outcomes**

The Tri-Cities region of northeast Tennessee already is home to four non-profit safety net dental clinics. However, there is clearly either a lack of use of these services or these services are not sufficient to meet the needs as evidenced due to the number of dental problems in the Appalachian region. One potential outcome of this study will be to shed light on whether the clinics are truly underutilized and why or if they simply cannot offer enough services to meet the

needs of the region. I also hope to gain a better understanding of the barriers that exist that create dental disparities for low-income residents.

### **Summary**

Overall, this research for the Tri-Cities region of east Tennessee is severely needed. Oral health has such a strong impact on overall health, which is why people of the Appalachian region deserve to have an equal opportunity to receive the necessary and proper care. The main objective of this study was to analyze the services provided and to explore the existing dental disparities through the perspective of the safety-net dental clinics in the Tri-Cities. Suggestions for improving utilization of these services will be offered.

### **Results**

The surveys were sent through email to clinic coordinators of each of the four dental clinics over the course of a week in the spring of 2022. Only three of the four clinics chose to respond, and the responses are included in this section. There are many similarities in the responses. Each question will be listed, and the responses will be listed in order from “Clinic A” then “Clinic B” and lastly, “Clinic C.” After listing the answers, common themes among the clinics will be discussed.

#### **Questions and answers for the participating (three) clinics:**

1. How many patients do you see in a typical year?
  - 3,000
  - We see about 3,328 a year.
  - 1,340 dental patients and 458 hygiene patients
2. How many dental appointments do you fill in a typical week?
  - 120

- We see about 64 patients a week, including hygiene. 8 patients with the dentist and 8 with the hygienist.
  - Approximately, 85-90 appointments per week, includes hygiene appointments
3. Do you have a waiting list? Do patients have to schedule very far in advance to be seen?
- We do have around a week of waiting for new patients and after that appointment we schedule out up to 2 months.
  - As of now, we have had to slow the acceptance of dental patients due to the increase influx of patients. With our scheduling being as booked as it is, we do book a few months out.
  - Yes, we have a waiting/cancellation list. Currently, there is a 6-8 week wait to be seen.
4. How many or how often do you have to turn patients away? Do you turn them away daily or weekly?
- We do not turn patients away because of treatment. We just let them know it may take a little bit to complete their treatment.
  - We really don't turn away patients, any dental patient who is currently applying is referred over to a similar practice such as ours for service/care. Any patient who's beyond our scope is referred out to a specialist.
  - Unfortunately, we turn patients away daily.
5. What are your hours of operation for dental services? Is it Monday through Friday from 8-5 or when can patients schedule to be seen?
- Monday-Thursday 8-4:30 and 2 Fridays a month 8-2; lunch daily 12-1
  - We see patients Monday-Thursday from 8-5 PM weekly.



- Our clinic hours are Monday-Friday, 8:00 am – 5:00 pm, closed for lunch from 12 - 1:00 pm. When a provider is present appointments are made during clinic hours. However, 2 of our volunteer dentists will see patients after 5:00 once a month.
6. For what reasons do you have to turn people away? For example, if they don't meet clinic qualifications, don't have a dentist to see them because you rely on volunteers, etc., patient's need exceeds your service capability (complicated extraction, root canal, dentures, orthodontics, etc.)
- We do have to reject applications when they do not meet the safety net requirements for our state.
  - Reasons can include overload of patients, lack of eligibility such as patient has dental insurance, lack of dentists, or if patients need extensive care such as needing to be seen by an oral surgeon or a root canal specialist.
  - We are currently not accepting new dental patients due to a lack of dental providers/Does not meet clinic qualifications – i.e., has dental insurance or over income/Patient requires oral surgery, endodontics, bridges, periodontal, pediatrics
7. How are you staffed? Do you have volunteer dentists, full or part-time paid dentist, or both?
- We have 3 staff dentists and one volunteer dentist. 2 staff hygienists and the ETSU hygiene students
  - We are pretty well staffed when it comes to the supportive aspect. In terms of dental providers such as dentists, we have mainly part-time.
  - We have 6 volunteer dental providers that provide services once a month, and most will see 3-4 patients during their rotation/1 PT dentist who works 2 days per

week/ 4 UT dental students from Memphis, TN rotate every 2 weeks, for approximately 10 months/ 4 ETSU hygiene students provide cleanings 3 mornings a week, they see up to 8 patients per day

8. Do you need more dental staff?

- We could always use more dentists!
- We are always actively looking to grow and hopefully bring in a full-time dentist.
- YES! We will be hiring a FT dentist, FT RDA, 1 additional FT front office staff, PT hygienist

9. Do you ever have a dentist there to work and no patients for them to see?

- No! We have plenty of patients needing care.
- Hardly no, we try to ensure our schedule is fully booked.
- If a patient is a no-show for their appointment, the dentist will not have a patient to treat. For cancellations, we try to fill that appointment.

10. When patients cancel or no show, do they give any reasons? What are the typical reasons they give?

- Most of the time it is a no show. At this point the reason is covid. We charge a 25\$ fee for no show and late cancellations.
- Patients tend to give reasons for cancelations such as they have other engagements such as having an altercating appt somewhere else, or they are sick. Those who no show normally don't give much information for why they broke an appt.

- COVID, Lack of Transportation, Lack of Child Care, Work Schedule, Money (even though we do not turn people away for their inability to pay), Wrong Appointment Date

11. If you could expand your dental services, would you and how?

- We did just expand to doing dentures in house now!
- We are always wanting to expand to serve more people. Our practice is currently small, but our intent is in the future to grow and bring on more dentists and employees to serve the community.
- We are budgeting and seeking financial assistance to add 3 hygiene chairs and 1 dental operatory by the end of the year. We currently have 9 dental operatories. Plans also include to add another pano room and sterilization room.

### **Common Themes**

After analyzing the surveys, there is a need for more accessible dental care in the Tri-Cities region. While these clinics are seeing many patients, there is a lack of dentists and a lack of extensive care being given, which is often what these patients are seeking. These three clinics are seeing above 50 patients a week, meaning thousands each year. This also causes the clinics to have to book months in advance, leaving long periods of time between treatments for patients. Two of the three clinics said they do not turn away patients. However, one said they must turn patients away daily. Clinic B stated that while they do not turn patients away, they often must refer them to specialists. Clinic A, B, and C stated that they often must reject patient applications because they do not meet the requirements to be seen in a safety-net clinic. Clinic B and C both stated that an excess number of patients to be seen and a lack of providers often is reason potential patients are rejected. They also stated that their clinic often does not provide the

services needed such as endodontics, oral surgery, or pediatrics. All three clinics run off mainly volunteer dentists and admitted to needing more dentists in office. As they stated, there is a need for full-time dentists to be able to provide care. Furthermore, they need to be able to provide the extensive care. While these dentists can assess the patient's problems, they are often referred out to specialists. Once they are referred to a specialist, they are out of the safety-net and required to find a way to pay for treatment. They also said a common theme is for patients to not show up to appointments for reasons such as COVID-19, altercations in scheduling, lack of transportation, or lack of childcare. Therefore, many patients are not showing up to appointments, which prolongs their treatment and leaves an open spot for the clinic that could be filled.

### **Conclusions and Discussion**

While these three safety-net dental clinics provide a much-needed service to the Tri-Cities, it is sadly obvious that they are not able to meet all the needs and proactively get ahead of the problem of a lack of preventive dental care. Not having enough dentists, not being able to provide the treatments patients need, having to turn patients away, and dealing with missed appointments are common themes among these clinics.

Even with access to dental care, willingness of the patient to seek the available care and the availability of resources must be taken into consideration. First, proper education needs to be given. Schools in the Appalachian region need to have dental professionals come in at least once a school year and inform students about proper dental hygiene, the side effects of not properly taking care of oral health and inform them about the safety net dental clinics in their area. This would help enforce the importance of oral health and over a period would make oral health care a cultural value. Perhaps schools should consider hiring dental hygienists to work alongside school nurses.

Another problem that can be fixed is informing the people that utilize the safety-nets of the possible forms of transportation to get to the clinic. Most of the upper east Tennessee area is now served by the NET Trans service. Perhaps these clinics could apply for a grant to make a mobile dental office to be able to take care to the patient. This would be similar to in-home physical therapy, doctor's visits to be able to take the care to elderly patients or those that have no access to transportation. It also must be ensured that dental care providers are available at the safety-net clinics. Perhaps HRSA grants could be utilized for hiring dental personnel, so reliance on volunteers does not have to be as great. Additionally, dentists who agree to serve two years in an underserved area may qualify to have their school loans reimbursed through HRSA. Perhaps dental schools can make dental students more aware of this opportunity.

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