

**Assessment of Treatment Provided by Dental
Health Aide Therapists in Alaska: A Pilot
Study**

Kenneth Anthony Bolin

J Am Dent Assoc 2008;139;1530-1535

*The following resources related to this article are available online at
jada.ada.org (this information is current as of November 3, 2008):*

Updated information and services including high-resolution figures, can be found in the online version of this article at:

<http://jada.ada.org/cgi/content/full/139/11/1530>

Information about obtaining **reprints** of this article or about permission to reproduce this article in whole or in part can be found at:

<http://www.ada.org/prof/resources/pubs/jada/permissions.asp>

Assessment of treatment provided by dental health aide therapists in Alaska

A pilot study

Kenneth Anthony Bolin, DDS, MPH

Information on the oral health status of American Indian/Alaska Natives (AI/AN) has been gathered by the U.S. Department of Health and Human Services, U.S. Indian Health Service (IHS).¹ For comparisons with the U.S. general population oral health national averages, I used data from the Third National Health and Nutrition Survey, 1988-1994, and the National Health and Nutrition Examination Survey, 1999-2002, conducted by the National Center for Health Statistics.² Oral health disparities are widespread and significantly severe in geographically isolated locations in the United States in general³ and in the AN population in particular. Although the prevalence of dental caries in the general population of the United States decreased significantly during the 1980s and 1990s,⁴ there was only a small reduction of dental caries in the AN population in the 1980s. Existing disparities in oral health between ANs and the U.S. general population actually increased during the 1990s.^{2,5}

Comparing data from IHS surveys and National Health and Nutrition Examination Surveys sheds some light on the magnitude of the disparities in oral health status between ANs and the general population. AN children and adolescents experience approxi-

ABSTRACT

Background. Dental health aide therapists (DHATs) in Alaska are authorized under federal law to provide certain dental services, including irreversible dental procedures. The author conducted this pilot study to determine if treatments provided by DHATs differ significantly from those provided by dentists, to determine if DHATs in Alaska are delivering dental care within their scope of training in an acceptable manner and to assess the quality of care and incidence of reportable events during or after dental treatment.

Methods. The author audited the dental records of patients treated by dentists and DHATs who perform similar procedures for selected variables. He reviewed the records of 640 dental procedures performed in 406 patients in three health corporations.

Results. The author found no significant differences among the provider groups in the consistency of diagnosis and treatment or postoperative complications as a result of primary treatment. The patients treated by DHATs had a mean age 7.1 years younger than that of patients treated by dentists, and the presence or adequacy of radiographs was higher among patients treated by dentists than among those treated by DHATs, with the difference being concentrated in the zero- to 6-year age group.

Conclusions. No significant evidence was found to indicate that irreversible dental treatment provided by DHATs differs from similar treatment provided by dentists. Further studies need to be conducted to determine possible long-term effects of irreversible procedures performed by nondentists.

Clinical Implications. A need to improve oral health care for American Indian/Alaska Native populations has led to an approach for providing care to these groups in Alaska. The use of adequately trained DHATs as part of the dental team could be a viable long-term solution.

Key Words. Health services accessibility; community health aides; Alaska Natives; dental therapist.

JADA 2008;139(11):1530-1539.

Dr. Bolin is an associate professor, Department of Public Health Sciences, Texas A&M University Health Science Center, Baylor College of Dentistry, 3302 Gaston Ave., Room 705, Dallas, Texas 75246, e-mail "kbolin@bcd.tamhsc.edu". Address reprint requests to Dr. Bolin.

mately 2.5 times the amount of dental caries that children and adolescents in the general U.S. population do.⁵ For example, 20.7 percent of AN children 2 to 5 years of age are caries-free compared with 72.1 percent of children 2 to 5 years of age in the U.S. general population.^{2,6} Stated another way, AN children aged 2 to 5 years have a caries history 3.5 times that of the same age group in the general U.S. population, and the mean number of decayed and filled teeth found in the IHS study group was almost five times that of the U.S. general population.^{1,2} Sixty percent of AI/AN children have severe early childhood caries, which is defined as any child 5 years or younger with dental decay in the maxillary anterior teeth or six or more teeth with decay.¹

This prevalence of caries exists despite the implementation of significant dental decay prevention programs by the IHS and tribal organizations.⁶ Approximately one-half of AI/AN adults aged 35 to 44 years have destructive periodontal disease, compared with 22 percent in adults aged 35 to 44 years in the general U.S. population.⁷ There are significant disparities in all aspects of oral health for AI/AN population.⁸

Barriers to dental care. Obtaining access to routine and emergency dental care can be challenging for ANs. Approximately 87,000 of the 125,000 ANs live in rural communities, which are remote and not accessible by road. The extreme temperatures that occur in AN villages make travel, work and the operation of machinery difficult for those not accustomed to cold temperatures. Throughout most of the state, transportation is accomplished by airplane, boat, all-terrain vehicle or snowmobile. In general, there are significant distances between villages, and the presence of mountain ranges and glaciers compound the already difficult and dangerous task of travel.⁵ Alaska has a population density of about 1.1 people per square mile, compared with the U.S. national average of 79.6 people per square mile.⁹

While travel and geographic barriers are physical difficulties in providing dental care to ANs living in remote villages, other economic and cultural realities exist in that the villages usually are small and cannot support a full-time

general dentist or physician, let alone specialists.⁵ Dentists must travel to the villages periodically to provide dental care, or patients must be transported to a dentist for treatment, often by means of high-cost air taxi.⁶ Many villages have no lodging or dining facilities, and visiting dentists and staff members may have to sleep in the medical facility or the dental clinic. Many villages have no supermarkets at which to buy food, and perishable goods are hard to come by, even in the relatively mild summer months. Visiting dentists and staff members often must fly their own food into the village along with their baggage and dental supplies or risk having little to eat (M. Kelso, DDS, oral communication, July 2006).

Cultural barriers to care should be fairly predictable but often are not considered thoroughly when discussing access to care. Many Alaska dentists who may reside in regional hub towns but travel to remote villages for temporary duty can be viewed as itinerant people who do not speak the native language and who do not live in the bush country of Alaska.⁸ Dentists who may be seen as outsiders and who provide oral health advice, including oral hygiene instruction and dietary counseling, may seem paternalistic or aloof at best. For example, drinking soda pop rather than water is viewed by some in the Native Alaskan culture as a status symbol, and they continue to do so even though their dentists have told them that it can be bad for their teeth.^{8,10}

To address these and other issues, including the recruitment and retention of dentists by the IHS and native tribal health authorities, dental health aide therapists (DHATs) were deployed in Alaska as part of the Community Health Aide Program (CHAP). The rationale and history of the development of the idea to introduce mid-level dental providers who are analogous to

Alaska has a population density of about 1.1 people per square mile, compared with the U.S. national average of 79.6 people per square mile.

ABBREVIATION KEY. ADA: American Dental Association. AI/AN: American Indian/Alaska Native. CDHC: Community Dental Health Coordinator. CDT: Current Dental Terminology. CHAP: Community Health Aide Program. CODA: Commission on Dental Accreditation. DANB: Dental Assisting National Board. DHAT: Dental health aide therapist. IHS: U.S. Indian Health Service. OPA: Oral Preventive Assistant. SOAP: Subjective, Objective, Assessment, Plan.

physician assistants and nurse practitioners in medicine have been published.^{6,11}

I conducted a pilot study to determine via a systematic dental chart review if DHATs practicing in rural Alaskan communities were delivering dental care within their scope of training in an acceptable manner.

METHODS

To assess quality of care and the incidence of reportable events during or after treatment, I audited the charts of patients treated by DHATs who were under direct supervision and general supervision (DHAT groups) at five Alaskan dental clinics that were components of three health corporations. (Alaskan health corporations are designed in a similar structure to Federally Qualified Health Centers and typically are nonprofit entities that deliver medical, dental, pharmacy and other health-related services under one corporate identity.) I compared these data with those of patients treated by the supervising dentists (dentist group) in two Alaskan regional hub clinics (in Bethel and Nome) during the same period and from the same sampling frame. I randomly selected patient charts at both the regional hub and remote satellite clinics in the villages of Aniak, Shungnak and Toksook Bay from either computer printouts or from paper records according to availability at the respective sites.

The procedure codes (Current Dental Terminology [CDT] codes) I audited were those for treatments that DHATs are trained to provide and authorized to perform under the rules of CHAP. I audited the same procedure codes from the dentists' charts to control for bias owing to variation in treatment complexity between the two groups. I selected only irreversible procedure codes, except for radiographs, for investigation. Hence, I did not include in my assessment any procedures that a dental hygienist or other expanded function dental auxiliary could perform such as prophylaxis, placing sealants, and providing fluoride treatments and oral hygiene instruction.

I used selected indicators from the Indirect Review of Clinical Quality and Risk Management (Chart Review) section of the quality assessment tool used by the IHS¹² to examine the dental treatment provided by DHATs. This chart review tool consists of 12 categories containing 83 criteria that could be chosen in a full

chart review. For this pilot study, I selected only those criteria that I deemed to be of concern regarding the implementation of a dental therapy program. I pilot-tested these selected criteria with the clinical program directors of two of the three health corporations. I did not include criteria that did not apply to DHATs (that is, criteria for endodontics, prosthodontics, orthodontics, laboratory procedures, methods of measuring periodontal case types or any other procedures that DHATs are not trained to perform nor expected to perform). I also examined chart entries for any recorded reportable outcomes or complications resulting from the treatments provided by practitioners in the DHAT and dentist groups.

I minimized interexaminer bias by being the only one to review the charts. All treatments were performed between Jan. 10, 2005, and July 25, 2006, and my on-site chart audits took place in July and August of 2006. The study protocol was approved by the Texas A&M Health Science Center, Baylor College of Dentistry Institutional Review Board.

RESULTS

I audited 640 irreversible dental treatment procedures performed on 406 different patients for selected quality of treatment indicators: the presence of Subjective, Objective, Assessment, Plan (SOAP) notes; treatment code recorded consistent with diagnosis; presence or adequacy of radiographs; and report of intra- or postoperative complications. The distribution of procedures performed by provider type was as follows: dentist, 171 (26.7 percent); DHAT under direct supervision, 218 (34.1 percent); and DHAT under general supervision, 251 (39.2 percent). I recorded the procedure codes and tabulated them. The top three procedures grouped according to code families (for example, CDT series D2100s, D2300s and D7000s) that were performed by all provider groups were as follows: alloy restorations, 152 (23.8 percent); posterior composite restorations, 144 (22.5 percent); and extractions, 123 (19.2 percent). A cross-tabulation calculation that compared the distribution of CDT procedure code families performed by the dentist group and the DHAT groups showed no significant difference among the groups for any CDT code family except crowns, specifically stainless steel crowns (Fisher exact test, $P = .003$). Figure 1 shows the total distribu-

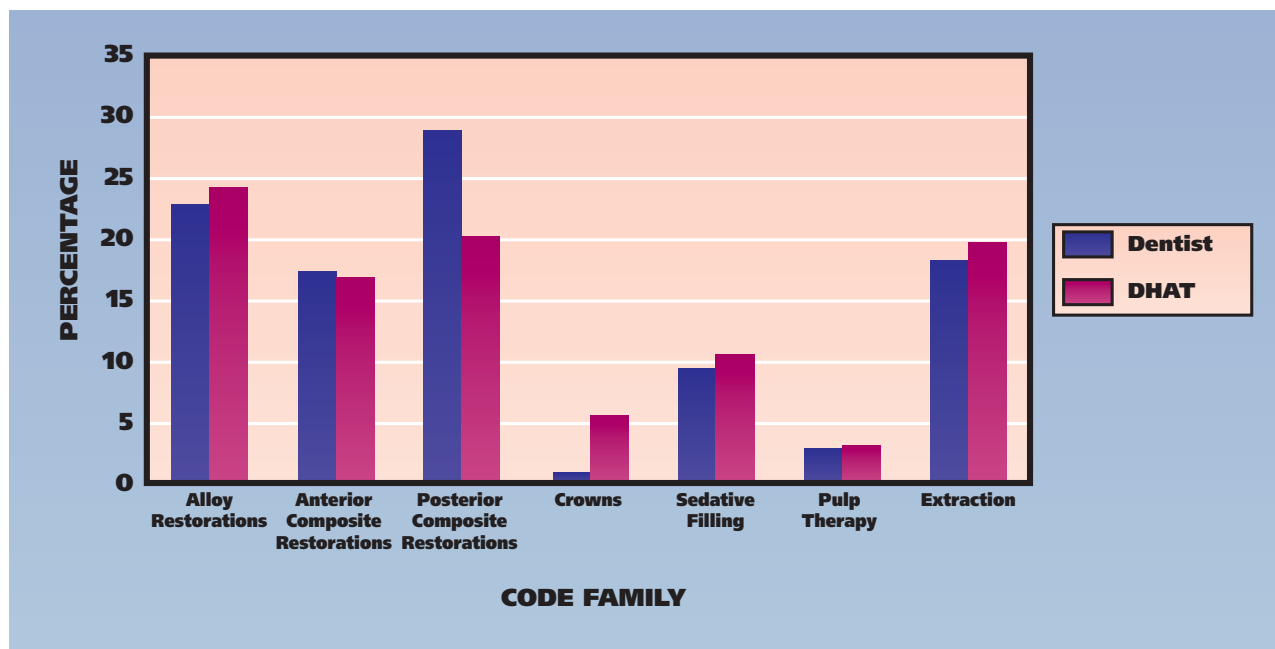


Figure 1. Bar graph showing Current Dental Terminology code families by provider type. DHAT: Dental health aide therapist.

tion of procedures grouped according to CDT code families by provider type.

SOAP notes were available in 638 (99.7 percent) of all cases reviewed. The CDT procedure code recorded was consistent with the diagnosis for 630 (98.4 percent) of procedures performed. The differences among the DHAT groups and the dentist group were not significant in this area (Fisher exact test, $P = .73$). Overall, radiographs were present or adequate in 551 cases (86.1 percent). Further analysis showed the DHAT groups had significantly lower percentages of present or adequate radiographs than did the dentist group (χ^2 ; $P = .012$); however, the deficiency was notable in that it was limited to patients 6 years or younger (χ^2 ; $P < .001$). In addition, analysis showed that practitioners in the DHAT groups saw younger patients than did practitioners in the dentist group. The mean age of patients treated by DHATs was 16.9 years, and the mean age of patient treated by dentists was 24.0 years. An independent samples t test showed this was a significant difference ($P = .002$). The mean age of all patients treated by all groups was 18.78 (standard deviation ± 15.26) years. Figure 2 shows the age distribution of patients seen by DHATs compared with that seen by dentists. This comparison shows that DHATs treated a larger number of younger children, and dentists treated more of the population older than 35 years.

The definition I used for complication— intra-operative or postoperative—was two-tiered. I considered a complication to be within normal limits if it was an event that could happen to any dental provider at any time and be remedied easily (for example, a patient wishing to stop a procedure, an uncooperative child preventing completion of a procedure, debonding of a composite restoration or breakage of an amalgam restoration before dismissal of the patient). I defined a complication requiring further treatment as a reportable event that requires a return visit to the clinic, postoperative medications or intervention by a general dentist or specialist. Examples of this type of complication are debonding of a composite restoration or breakage of an amalgam restoration after dismissal of patient, postoperative infection, breakage of a root tip, as well as other problems (Box). When I used these definitions, I found that there were no complications reported in association with 625 (97.7 percent) procedures performed by providers in all groups. There was no significant difference in the number of any kind of complication between the DHAT group and the dentist group (Fisher exact test, $P = .770$).

DISCUSSION

Decades of poor oral health and failing efforts to recruit dentists and specialists to the remote

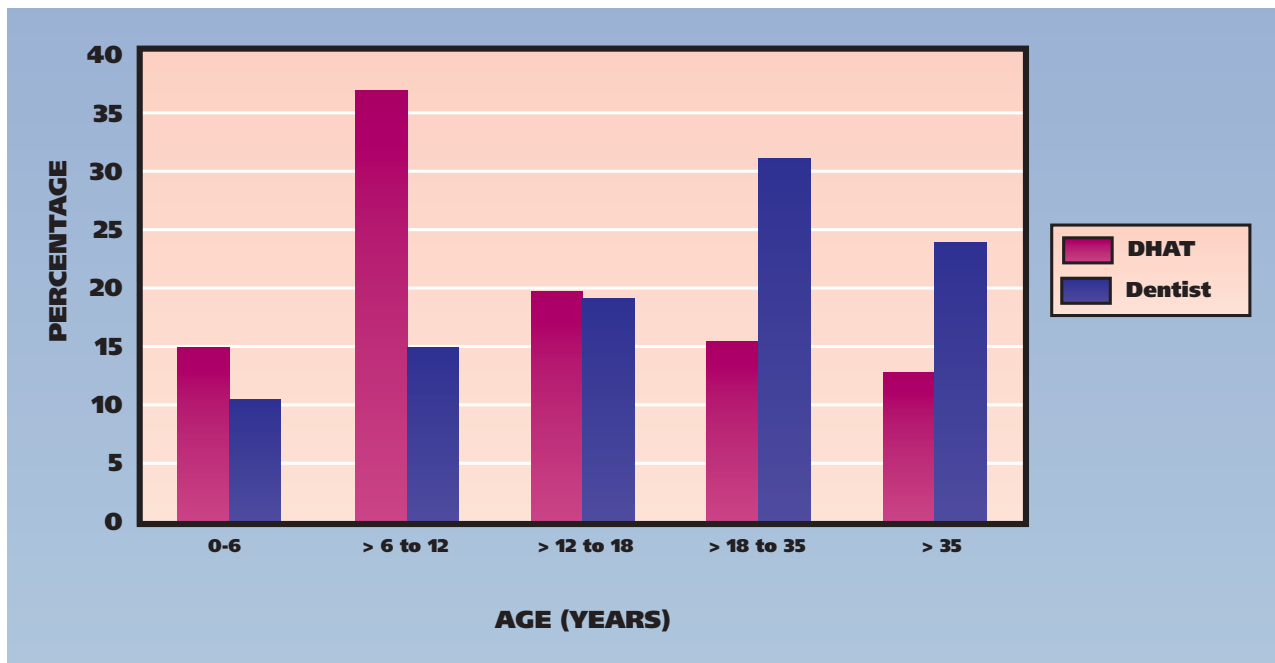


Figure 2. Bar graph showing age distribution of patients, by provider type. DHAT: Dental health aide therapist.

BOX

Examples of reportable complications.

- Allergic reaction
- Aspiration or swallowed substance
- Cardiac arrest or dysrhythmia
- Excessive pain, bleeding or swelling during or after treatment
- Fractured mandible
- Fractured or damaged nontreated tooth
- Laceration requiring sutures
- Lack of informed consent, patient-perceived
- Medical complications resulting from dental treatment
- Oral-antral fistula, iatrogenic
- Paresthesia
- Severed blood vessel
- Severed nerve
- Syncope and vertigo
- Wrong prescription: drug, dose, instructions, etc.
- Wrong tooth treated or extracted

bush country of Alaska require new approaches to address the problem of oral health disparities in the AN population. One of the main objections to the solution of expansion of duties to nondentists was the issue of quality of care. Some who are opposed to treatment provided by DHATs have suggested that it is “second-class care” or, since DHATs do not have dental licenses, that they are practicing dentistry without a license and, therefore, could be “unsafe.”^{13,14} Setting aside the political and philosophical nature of

these arguments, the scientific and objective evaluation of this new method of delivering care should be studied in the United States as it has been in other countries. Although the use of DHATs or dental therapists is allowed in more than 40 countries worldwide, including some developed Western nations,^{10,15} the dental profession in the United States has been opposed for decades to providers other than dentists performing irreversible dental procedures, regardless of the procedures’ complexity. This opposition has occurred despite study results showing that DHATs can perform primary care procedures comparably to dentists, and that DHAT trainees perform equally well compared with dental students.¹⁵⁻¹⁸ However, the legality of these midlevel dental practitioners’ performing duties they are trained to perform no longer is in question after a court ruling upheld the exemption of DHATs from the Alaska Dental Practice Act.¹⁹

Limitations of the study. At the time I performed the chart audits, the deployment of DHATs in Alaska was in its infancy; DHATs had been seeing patients for only six months. Consequently, there were not as many DHAT charts for me to select from to obtain the numbers that I needed to conduct a higher-powered analysis of the data. In addition, there were not sufficient numbers of procedures available to control for

age and sex matching by CDT procedure code in comparing DHATs and dentists. In some remote satellite clinics, the audit essentially was a census survey, rather than a random selection, of patients seen for treatment that involved irreversible dental procedures. Chart availability varied somewhat from health corporation to health corporation and from clinic to clinic. This variation in retrievability may have injected selection bias favorable to the dentist group into the sample.

Variation in the availability of digital radiography and reliability of the information technology systems of the respective organizations also may have influenced the absence or presence of radiographs in either the traditional chart or the electronic health record, which could be determined only by conducting a larger and more exhaustive examination of records.

Finally, this pilot study cannot be interpreted as a true outcomes study, which would require much more abstraction of data, patient questionnaires, patient satisfaction surveys and possible live examination of patients' treatment in a prospective cohort study. A much larger, long-term study needs to be performed to continue to examine the immediate and long-range effects of having culturally competent, local native people provide the oral health advice, dietary counseling, preventive care and necessary therapeutic procedures within the intended scope of practice in a consistent manner over time.

CONCLUSIONS

I found no significant evidence to indicate that irreversible dental treatment provided by DHATs differed from similar treatment provided by dentists. Analysis of the dental charts I audited showed that DHATs were being deployed to treat younger patients than their dentist supervisors. They obtained significantly fewer radiographs for patients 6 years or younger, and they placed significantly more stainless steel crowns than did the dentists. No significant difference in reportable events occurred between the DHAT groups and the dentist group in the dental charts I audited. Further studies need to be conducted to determine possible long-term effects of irreversible procedures performed by nondentists. ■

Disclosure. Dr. Bolin did not report any disclosures.

This study was funded by the Texas A&M University System Health Science Center Research Development Grant Program, College Station, Texas.

The author thanks the Yukon-Kuskokwim, Norton Sound and Maniilaq health corporations for their cooperation in the chart review and advice in navigating in the bush country of rural Alaska.

1. U.S. Department of Health and Human Services, Indian Health Service. *An Oral Health Survey of American Indian and Alaska Native Dental Patients: Findings, Regional Differences and National Comparisons*. Rockville, Md.: U.S. Department of Health and Human Services, Indian Health Service; 2002.

2. Beltran-Aguilar ED, Barker LK, Canto MT, et al.; Centers for Disease Control and Prevention. Surveillance for dental caries, dental sealants, tooth retention, edentulism, and enamel fluorosis: United States, 1988-1994 and 1999-2002. *MMWR Surveill Summ* 2005;54(3): 1-43.

3. U.S. Department of Health and Human Services. *A National Call to Action to Promote Oral Health*. Rockville, Md.: U.S. Department of Health and Human Services, Public Health Service, National Institutes of Health, National Institute of Dental and Craniofacial Research; 2003. NIH publication 03-5303.

4. U.S. Department of Health and Human Services. *Oral Health in America: A Report of the Surgeon General*. Rockville, Md.: U.S. Department of Health and Human Services, National Institute of Dental and Craniofacial Research, National Institutes of Health; 2000.

5. Sekiguchi E, Guay AH, Brown LJ, Spangler TJ Jr. Improving the oral health of Alaska Natives. *Am J Public Health* 2005;95(5): 769-773.

6. Nash DA, Nagel RJ. Confronting oral health disparities among American Indian/Alaska Native children: the pediatric oral health therapist. *Am J Public Health* 2005;95(8):1325-1329.

7. U.S. Department of Health and Human Services. *Healthy People 2010*. 2nd ed. Washington: U.S. Department of Health and Human Services; 2000.

8. Smith EB. Dental therapists in Alaska: addressing unmet needs and reviving competition in dental care. *Alaska Law Rev* 2007; 24(1):105.

9. U.S. Census Bureau. *State and County Quick Facts: Alaska—Persons per square mile, 2000*. "http://quickfacts.census.gov/qfd/states/02000.html". Accessed Sept. 16, 2008.

10. Garvin J. Controversy in Alaska: are dental therapists the answer to Alaska natives' caries crisis. *AGD Impact* 2005;33:18-23.

11. Nash DA, Nagel RJ. A brief history and current status of a dental therapy initiative in the United States. *J Dent Educ* 2005;69(8): 857-859.

12. U.S. Public Health Service Dental Category. IHS Division of Oral Health Quality Assessment Guide: Section VII—Quality Assessment, Indirect Review of Clinical Quality and Risk Management (Chart Review). "www.phs-dental.org/depac/chap/qa.rtf". Accessed Sept. 16, 2008.

13. Patkotak E. Dental association offers no solution. *Anchorage Daily News; Voice of the Times*. Aug. 3, 2005.

14. U.S. Newswire. American dental association protests second-class dental care for American Indians, Alaska Natives. July 15, 2005. "http://findarticles.com/p/articles/mi_hb5554/is_2005/ai_n21859990". Accessed April 26, 2008.

15. American Public Health Association. Policy Statement Database: Support for the Alaska dental health aide therapist and other innovative programs for underserved populations. "www.apha.org/advocacy/policy/policysearch?id=1328". Accessed April 26, 2008.

16. Alaska Native Tribal Health Consortium. Perspective: Politics and the dental health aide initiative. "www.anthc.org/cs/chs/dhs/". Accessed April 26, 2008.

17. Powell WO Jr, Sinkford JC, Henry JL, Chen MS. Comparison of clinical performance of dental therapist trainees and dental students. *J Dent Educ* 1974;38(5):268-272.

18. Roder DM. The school dental therapist of South Australia. *J Public Health Dent* 1972;32(2):70-82.

19. Hoyle J. Association reaches settlement in Alaska litigation. "www.ada.org/prof/resources/pubs/adanews/adanewsarticle.asp?articleid=2582". Accessed April 26, 2008.

Commentary

ASSESSMENT OF TREATMENT PROVIDED BY DENTAL HEALTH AIDE THERAPISTS IN ALASKA

Albert H. Guay, DMD

The introduction of dental health aide therapists (DHATs) in the United States represents a major change in our oral health care system. Nondentists are allowed to diagnose oral disease, develop a treatment plan, and perform both routine and emergency nonreversible surgical procedures for patients. Supervision of DHATs by dentists varies from direct to general, and there is no requirement that a dentist be present at the site of delivery or even in the same town or village in which care is being provided.

It appears that concerns for the availability of oral health care, particularly in remote and frontier areas, have overridden concerns for patient safety and the efficacy of the treatment provided by DHATs. It is important, rather, it is critical that appropriate clinical research be conducted to examine the outcomes of this new method of delivering care to determine the safest and most appropriate use of DHATs to increase access to appropriate and safe oral health care and the efficiency of dental practice.

In conducting such research, it is important that the investigations be well-designed (that is, be appropriately controlled, be of adequate duration to draw valid conclusions, have suitable and comparable samples and be able to generate objective and relevant information). Since the evaluation of the safety and efficacy of treatments provided by DHATs is so important to the well-being of the public, conclusions drawn from this research should be derived solely from the study data.

The article "Assessment of Treatment by Dental Health Aide Therapists in Alaska: A Pilot Study" by Dr. Kenneth Anthony Bolin reports on the results of a short-term study of four parameters used to compare the results of dental care provided by dentists, DHATs under direct supervision of a dentist and DHATs working under general supervision. Using post-operative chart review only, the author selected

and audited four quality-of-care indicators: notation in the patient record, was treatment provided consistent with the diagnosis, the adequacy of radiographs and any report of adverse events that occurred during or after treatment.

The study found that clinical notes were present for nearly all patients. There was no significant difference found between the groups in the consistency between the treatment provided and the diagnosis recorded. The DHAT groups had a significantly lower percentage of adequate radiographs than the dentist group did. There was no significant difference in the incidence of adverse events between the study groups.

An assessment of the quality and adequacy of clinical treatment requires much more than a chart review. Such reviews can shed some light on the administrative aspects of care or the processes used in delivering care, but they provide little insight into the outcomes of that care. Although administratively easy and relatively inexpensive to accomplish, chart reviews simply cannot supply the information that is required to determine the quality and clinical adequacy of care provided.

The age distribution of the patients in the sample was significantly skewed toward being younger. The sample matching between groups could have been better. The ages of the patients treated differed between the study groups, changing the baseline for comparisons.

The mere existence of clinical notes is not a prime factor in the assessment of the quality of care. The consistency of the treatment provided with the diagnosis made fades in importance compared with the accuracy of the diagnosis in the first place, which was not evaluated. The limited scope of diagnostic and treatment training DHATs acquire make a mismatch of those factors unlikely.

The significant difference in the presence or

adequacy of radiographs appears to have been explained away by the differences in the ages of the patients treated by the DHATs and the dentists. If radiographs are required to establish a proper diagnosis, they should be of adequate quality to be useful, regardless of the difficulty in taking them. The idea of overlooking this inadequacy in a “safe” procedure because of apparent clinical difficulty portends significant problems in the future if it is carried over to irreversible procedures with some safety risk.

There was no significant difference between the groups in the incidence of adverse events reported, although there was an almost four-fold increase in the percentage of adverse events reported in the DHAT groups.

The far-reaching conclusion drawn by the author that “no significant evidence to indicate that irreversible dental treatment provided by DHATs differed from similar treatment performed by dentists” cannot be drawn from the design of this study or from the data generated.

An extensive study of the outcomes of the expanded role of DHATs in providing dental care for people needs to be conducted. It needs to be done well, as outlined above, so that it will provide objective information that can be used to evaluate better the safety and efficacy of using DHATs in this new ancillary personnel role.

Why has this commentary been written? Being responsible for overseeing the oral health of the public, the dental profession has a responsibility to investigate and understand the implications of such a landmark change in who can deliver dental care. Public policy and the policies of the dental profession should be based as much as possible on adequate and objective information and analysis. The price of failing in this analysis may be too high and will be paid by those in the greatest degree of jeopardy. ■

Dr. Guay is the chief policy advisor, American Dental Association, 211 E. Chicago Ave., Chicago, Ill. 60611, e-mail “guaya@ada.org”.

The views expressed in this commentary are those of the author and are not necessarily those of the American Dental Association or its subsidiaries.

RESPONSE TO COMMENTARY

Kenneth Anthony Bolin, DDS, MPH

No one will disagree with the commentator that “the introduction of dental health aide therapists (DHATs) in the United States represents a major change in our oral health care system.” However, the allegation that “concerns for the availability of oral health care, particularly in remote and frontier areas, have overridden concerns for patient safety and the efficacy of treatment” is an opinion that is not substantiated by evidence.

I can assure Dr. Guay that my work in this area also is founded on concerns for patient safety and efficacy of treatment. As I referenced in the article, studies have been done in other first-world countries in which dental therapists are legally providing care to patients with no evidence of significant adverse effects. In those countries, as a result of the studies, concerns related to the safety and efficacy of dental therapy practitioners were shown to be ill-founded. Thus, I agree with Dr. Guay that conclusions “should be derived from solely from the study data,” not personal opinion.

I fully agree that “appropriate clinical research be conducted to examine the outcomes.” I also agree that a definitive “assessment of the quality and adequacy of clinical treatment requires much more than a chart review.” However, a retrospective analysis of existing clinical records, such as I conducted, is a reasonable and scientifically appropriate step to take in the study of this important topic. A well-controlled, prospective, longer-term study will be needed to satisfactorily answer many important questions. In such a design, the outcomes of care by DHATs will be compared directly with the outcomes of care by dentists. The most rigorous study design to address such concerns is a randomized controlled trial in which patients are assigned randomly to either a dentist or a DHAT for care, with the same outcomes evaluation criteria and blinded evaluators used to assess the care given by each type of provider.

The points that are raised in the commentary regarding the methodology of the data collection of this Alaska study are thoroughly described in the methods and results sections

of the article, and I addressed the items that are of concern to Dr. Guay in the discussion section of the article. My conclusion that no significant evidence was found “to indicate that irreversible dental treatment rendered by DHATs differed from similar treatment performed by dentists” is factually correct, and, thus, it is unclear why Dr. Guay believes that such a conclusion “cannot be drawn from the design of this study or from the data generated.” As clinical scientists, we understand the limits of inference and recognize that absence of evidence of an effect is not the same thing as evidence for the absence of an effect. Nevertheless, in my analysis, I found no statistically significant differences; that is, the null hypothesis was not rejected. Clearly, the rigorous scientific peer-review process followed by The Journal of the American Dental Association that preceded the acceptance of my manuscript concluded that the analysis

and data were sound.

In conclusion, I agree with Dr. Guay that further “study of the outcomes of the expanded role of DHATs in providing dental care for people needs to be conducted.” Certainly, this article describes a pilot study as the subtitle states. It gives us clues as to where we need to use our scientific and critical thinking skills to help lead us in our design of further prospective outcomes studies. In this way, the dental profession can base conclusions on sound data, not on tradition, opinion or political pressures. I look forward to seeing the results of those studies, one of which is under way. ■

Dr. Bolin is an assistant professor, Department of Public Health Sciences, Baylor College of Dentistry, Texas A & M University Health Science Center, 3302 Gaston Ave., Room 705, Dallas, Texas 75246, e-mail “kbolin@bcd.tamhsc.edu”.

ADA on access to care

James Berry

As a matter of policy, the American Dental Association (ADA) is committed to improving access to dental care for all those in need nationwide.

The Association has labored proactively for more than two years to enhance the existing dental workforce in ways that are expected to boost access to care for the underserved—while also ensuring that the care delivered is provided safely and effectively under the supervision of dentists.

At this writing (late September), the ADA House of Delegates was three weeks away from deliberating a resolution calling for continued and expanded support for a new member of the oral health care team. The House also was due to receive an informational report on a second new member of the team.

These new team members, briefly described below, constitute only part of a much broader ADA response to the access problem. Other elements of that response, to name a few, include advocating for improved funding and organization for Medicaid, expansion of the State Chil-

dren’s Health Insurance Program and such activities as Give Kids A Smile.

COMMUNITY DENTAL HEALTH COORDINATOR

To be recruited from within their own distinct communities, Community Dental Health Coordinators (CDHCs) will help the underserved within the community to navigate the health care delivery system, breaking down barriers to care and serving as patient advocates, facilitators and motivators.

CDHCs will work under a dentist’s supervision in health and community settings such as schools and senior citizen centers, Head Start programs and other public health settings. CDHCs will be trained to promote oral health and to provide the most basic preventive services until the patient can receive comprehensive care from a dentist or dental hygienist. They will not diagnose disease, nor will they perform any irreversible procedures.

The CDHC is being developed in two phases.

Phase 1—development of an 18-month training program—has been completed. Phase 2 involves pilot training programs at three sites: one Native American, one urban and one rural. Training is expected to begin in early 2009.

ORAL PREVENTIVE ASSISTANT

Also in development for two years, the Oral Preventive Assistant (OPA) workforce model is designed to foster an expanded preventive capability within the dental team by providing certain basic preventive services and freeing dentists and dental hygienists to concentrate on patients with more complex needs.

OPAs will provide patients with oral health education and information, as well as perform certain limited procedures—coronal polishing for all patients and scaling for patients with plaque-induced gingivitis—contingent on state regulations.

OPAs will work mainly in private dental offices, though their knowledge of oral health education also will enable them to work in schools, community health centers and other venues to raise oral health literacy.

A modular OPA curriculum provides a training program lasting about three months and assumes enrollees are dental assistants who have qualified for the program through one of four eligibility pathways:

- graduate of an accredited dental assisting program (accredited by the Commission on Dental Accreditation [CODA]);
- certified dental assistant (certified by the Dental Assisting National Board [DANB]);
- graduate of a dental assisting program not accredited by CODA but still a DANB-certified dental assistant;
- on-the-job-trained dental assistant who is a DANB-certified dental assistant.

Over the past several years, no single issue has commanded more attention from the ADA—and from ADA publications, both in print and online—than access to care. No doubt, that will continue in the years ahead as the Association's response to the access problem gains ground. ■

Mr. Berry is the associate publisher, ADA Publishing.