

Evaluation of the Dental Health Aide Therapist Workforce Model in Alaska
Final Report – October 2010
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Excerpts from the Executive Summary

Introduction:

Dental therapists in Alaskan villages work under the general supervision of dentists at regional offices. Therapists may perform teeth cleanings, restorations and uncomplicated extractions.

RTI study goals:

1. Evaluation of care provided by the therapists
2. Changes in access to care for eligible program beneficiaries

The study also included data collection pertinent to continuing quality improvement needs for the Alaska Tribal Coordinating Committee.

Areas of focus:

- Patient satisfaction, oral health –related quality of life, and perceived access to care
- Oral health status
- Clinical technical performance and performance measure;
- Record-based process measures and evaluation of clinical facilities
- Implementation of community-based preventive plans and programs

A case study was conducted of five unique Alaskan villages. This study is a cross-sectional assessment that provides insight into how the DHAT program is operating at a single time point of observation.

Methods:

Quantitative and qualitative measures were employed to evaluate the implementation of the DHAT program and to provide information for future use to serve as a baseline assessment in the long term evaluation.

The quantitative measures that were used relied on national and internationally recognized methods used in academic dentistry.

The qualitative measures were foundational ones commonly used in social sciences and health services research.

Trained and calibrated project dentists were used to directly observe the work of the therapists (performing restorations and other patient-specific care). In a blinded fashion characteristics of prior restorations (amalgams and composites) performed by dentists and therapists were assessed.

Dental records were assessed using explicit published criteria to measure practice effectiveness and site and individual therapist performance.

Qualitative data were derived from personal interviews and phone conversations, using structured interview guides.

Results:

The therapists were directly observed performing sealant placement, composite and amalgam preparations, stainless steel crown placement, and oral health instruction. The sample sizes for each of these procedures were small, as was the proportion of observed procedures with deficiencies.

Prior restorations were assessed by a “blinded” observer who was unaware if a therapist or a dentist had been the provider. In this convenience sample, few deficiencies were observed, and rates and types of deficiencies were similar for the two provider groups.

With regard to prevention, performance measures indicate that assessment of patient’s risk of dental disease is well integrated into some but not all practice sites.

Surveys indicated a general high level of patient satisfaction, and did not vary across sites or by age. Dental providers were rated to provide comfortable and expedient care.

Qualitative results indicated that many persons felt an improvement of access to care.

The therapists serve as a positive role model for the children.

Success of implementing the prevention programs appeared to be that the itinerant therapists did not have the time to divert from addressing backlogged dental needs, nor to educate key school system personnel about the importance of oral health.

The therapists operate within a modern clinic and all therapists and supervising dentists were full-time employees of their area’s tribal health organization.

The evaluation of clinic facilities, policies and personnel assessed 91 specific items across eight dimensions, and most of these were satisfactory across all sites.

Conclusions:

The therapists who were included in this study are performing well and operating safely and appropriately within their defined scope of practice.

The patients surveyed were generally very satisfied with the care they received from the therapists.

The therapists observed are well accepted in the villages and serve as role models.

Early indications show that the second prong of implementing preventive measures can begin.

The therapists’ cultural awareness and credibility in the villages can help shape changes in behavior.

Lessons to be drawn from the RTI study

Discussion:

Few, if any, widely accepted evidence based standards exist for assessing dental practice performance.

For dentists in private practice virtually no data exists for any of the outcomes measured in the RTI study.

Few measures are available to assess the quality of care in dental practices. Thus quality assessment, by necessity, must be descriptive but not comparative.

Although measures of access exist, having access to care does not necessarily guarantee patient health. To assure health access must include the concept that health care services will maintain or improve health or otherwise provide “quality care.”

Key features of the RTI study

The RTI study is a cross-sectional assessment, which provides insight into how a program is operating at a single point of observation: “A Snapshot in Time”.

For an evaluation of what the impact of the DHAT program may be on the oral health of the community over time, we included an oral health survey of the village residents that can serve as a baseline for future longitudinal studies.

Specific parameters of focus that the RTI study included:

- Patient satisfaction, oral health quality of life and perceived access to care
- Oral health status
- Clinical technical performance and performance measures
- Record-based process measures and evaluation of clinic facilities, policies and personnel (91 specific items)
- Implementation of community-based prevention plans and programs

In the RTI study, examiners recorded evaluations reflecting clinical technical performance during the oral health surveys. It is misleading to equate quality of care with the technical excellence while ignoring the more important consideration of patient outcomes. Also, no norms for comparison of technical performance using these evaluation measures are available.

Data were collected, in a blinded and unbiased fashion, that permit comparisons of technical excellence of prior restorations provided by members of the groups.

There are no uniformly accepted practice groups whose standardized performance can serve as a valid comparison for what the RTI study undertook to observe.

Making a case for studies in private practice and other public health settings

Little information is available about these qualities and characteristics from the practice settings in which the majority of private dentists in this country currently operate. To fill this void in knowledge, a random sample of practicing dentists could be selected and recruited to participate in a study that employs methods similar to those used in this evaluation. A broad spectrum of key stakeholders could serve as scientific advisors to the project. Using external, objective observers, such a study could assess the clinical technical performance, performance measures; and clinical facilities, policies, and personnel of each participating practice.

Here too, it is recommended to start out with cross-sectional baseline assessment, which can serve as a foundation for future longitudinal study, to measure change and progress. Areas of interest can be oral health measures and satisfaction surveys, in groups of patients.

Simultaneous or retrospective comparisons of multiple practices within a category (such as e.g. private practice, FQHC or institutional practice) will be useful, to establish validity of benchmarks and outcome measures.

Categorical comparisons among different practice settings will remain extremely challenging and will have to take into account many confounders, which inevitably will be brought up by critics.

Measures of clinical technical performance of individual practitioners or among them will be more difficult to accomplish without standardized observers present on site. Alternatively, a retrospective assessment of restorations and other procedures performed by individual dental providers is also labor intensive and costly. Questions remain on how useful this information is in the overall assessment of improving oral health for the patients involved.

A retrospective chart review provides important information in many areas of practice performance, and combined with assessment of clinical facilities, policies and personnel records, will allow for useful baseline data in this process.

Conclusion and recommendation:

Currently few evidence-based standards exist to assess dental practice performance. Standardized indicators are needed to measure clinical quality and establish benchmarks for future assessments. A recent RTI study to evaluate quality of a newly launched program for dental therapists in Alaska applied a combination of existing social and clinical indicators. This study can serve as a model and call to action for future studies to help determine and improve quality of care in dental practice.