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# Mounting Scientific Opposition to Preceptor Training: Lessons Learned from Missouri

In February 2005, the Missouri Dental Association's (MDA) proposal for a new dental health care worker, a scaling assistant called a *registered dental therapist* (RDT), was stalled in the Professional Registration and Licensing Committee of the Missouri House of Representatives before ever getting to the legislative chambers (Sidebar) (D. Bomkamp, written communication, Feb 2005).[1] Indeed, Missouri dental hygienists are shouting their success from the rooftops—and who wouldn't? But let us not be naïve—similar threats to undermine dental hygiene education may loom on the horizon, with the end result being compromised care. So what is the best way to mount a defense against attempts to undermine education in dental hygiene and, ultimately, our profession? Now may be the time to consider how to thwart future threats aimed at chipping away formalized education.

Ultimate success in preserving our professional boundaries lies in convincing state legislators to focus on the level and intensity of the education necessary to ensure that patients receive periodontal treatment that is at least adequate. The level of the education and training needed for the 21st-century dental hygiene practice is more, not less. A more detailed examination of the MDA's recent proposal to introduce the concept of an RDT gives us an idea of the kind of educational erosion associated with preceptorship programs and the kind of threats that may emerge in other states.

## The MDA's Proposal on Scaling Assistants

The MDA's proposal advocated for scaling assistants called registered dental therapist-1 (RDT-1) and registered dental therapist-2 (RDT-2), which are defined as "Any person [who] practices as a registered dental therapist within the meaning of this chapter who provides preventive, limited periodontal, and dental services in cooperation with, and under the direct supervision of, a currently registered and licensed dentist in Missouri. A currently registered and licensed dentist may delegate to a registered dental therapist such acts that would be considered the practice of dentistry as defined in section 332.071 provided such delegation is done pursuant to the terms and conditions of a rule adopted by the Missouri [State] Dental Board pursuant to section 322.031" (Table 1).[1,2]

Although the MDA claimed that the scopes of practice of RDTs (1 and 2) would be differentiated from that of a registered dental hygienist, closer examination reveals that there was only 1 slight difference between the scope of practice of an RDT-2 and a registered dental hygienist—a registered dental hygienist is allowed to treat advanced and refractory cases of periodontitis.[2]

Table 2 itemizes the course of study and the 72 to 74 hours the MDA proposed as being sufficient for the education and training necessary for RDTs. Compare this against the 1800 hours of formal education that registered dental hygienists are required to complete.

## Mounting the Best Defense

If it had passed the state legislature, the MDA's proposal for scaling assistants would have threatened the quality of periodontal care, all in the name of access to care. Thankfully, there were Missouri dentists who saw the big picture on how scaling assistants may compromise the level of care and therefore chose not to support this proposal (K. Reiner, written communication, Feb 2005). The battle in Missouri is over, at least for now, but we need to be asking legislators around the country 2 questions:

- Fundamentally, don't legislators have a responsibility to ensure health care for the public they serve?
- At a minimum, don't legislators have a responsibility to at least "do no harm"?

Whether future proposals like the MDA's are passed in state legislatures may tell us a whole lot about the naïveté of statesmen, the strength of special interest groups, or both. But let's be smart about how to defend the need for the 1800 hours of formal education required of registered dental hygienists. Instead of concentrating fully on staking out our turf and focusing on how scaling assistants (and other preceptor initiatives like Missouri's) may cause the demise of the dental hygiene profession, I think we can be more effective in defending the profession through scientific support of the level of education and clinical training necessary to perform the level of care demanded of us.

To that end, we must compellingly communicate a scientific justification for the need to remove a critical mass of calculus and we must accurately articulate the level of technical training necessary to achieve competency in scaling and root planing. Let's be real—competent scaling and root planing, appropriate use of adjunctive therapies, and the knowledge and critical thinking skills necessary to incorporate the science of periodontal-systemic associations into clinical practice cannot be taught in the 72 to 74 clock hours that the MDA claims is possible.[1] Furthermore, without competency, the patient loses. Ultimately, I think scientifically supported arguments targeting the quality of patient care will be more successful in securing our profession than strategic rhetoric

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**Table 1—Is there truly a differentiation between the scope of practice of the MDA's proposed registered dental therapist (RDT-1 and RDT-2) and that of a registered dental hygienist (RDH)?[1,27]**

| Procedure | RDT-1 | RDT-2 | RDH |
|---|---|---|---|
| "Administration of local anesthesia" | | x | x |
| "Administration of nitrous oxide" | x | x | x |
| "Debridement in preparation for definitive periodontal therapy in all periodontal case types." | x | x | x |
| "Periodontal measurements" | x | x | x |
| "Removal of hard and soft deposits" | x | x | x |
| "Root planing" | | x | x |
| "Scaling and polishing of teeth for patients who are healthy or have gingivitis" | x | x | x |
| "Treatment of advanced periodontitis" | | | x |
| "Treatment of moderate periodontitis" | | x | x |

**Table 2—The 72- to 74-hour course of study proposed by the MDA for the minimum requirements for the RDT-1.[1,27]**

| Course of Study | Hours Required |
|---|---|
| Accurate charting of the conditions of the oral cavity | 2 hours |
| Communication skills and behavior modification | 2 hours |
| Dental and gingival anatomy and morphology | 4 hours |
| Dental plaque, stain, and calculus formation | 6 hours |
| Instrumentation usage and safety | 14 hours |
| Jurisprudence | 2 hours |
| Nutrition | 2 hours |
| Obtaining an accurate dental and medical history | 1 hour |
| Oral hygiene instructions | 4 hours |
| Periodontal disease understanding, recognition, and treatment | 4 hours |
| Removal of soft and hard deposits | 30 hours |
| Sterilization and infection control | 3 hours |

aimed solely at guarding the boundaries of our scope of practice.

## The Sensitivity of Instrumentation

A faculty member of a dental hygiene program in Missouri wrote to me asking for advice:

"I am looking for any help guiding me toward resources that we could use to dissuade the Missouri Dental Association from pushing proposals for two categories of RDT—dental scaling assistants. The RDT would be allowed to scale and root plane patients with early-to-moderate periodontal infections, give nitrous and local anesthesia, and [take] periodontal measurements under indirect supervision. The dentists proposing this legislation state that full-mouth debridement versus the conventional sextant/quadrant treatment has no detrimental effects. I need help finding information relating to full-mouth debridement versus sextant/quadrant treatment." (Anonymous, written communication, Aug 2004).

So, how do we respond to claims that full-mouth debridement vs conventional quadrant treatment has no detrimental effect?

There is a tremendous amount of confusion over the terminology related to periodontal instrumentation.[3] Some authors and clinicians have redefined the term *root planing* so that its meaning is similar to that of *periodontal debridement*, though it should be pointed out that the end points of instrumentation are different.[4,5] For the purposes of this article, however, the term *periodontal debridement* will be used.

*Debridement* is a term first used by Smart and colleagues to describe the use of a sonic or ultrasonic instrument with light overlapping strokes to remove accretions from the clinical crown and root of teeth.[4] Nield-Gehrig and Willmann defined *periodontal debridement* as the removal or disruption of bacterial plaque, its byproducts, and plaque-retentive calculus deposits from coronal surfaces, root surfaces, and within pocket space and tissue wall to the extent needed to reestablish periodontal health and restore a balance between the bacterial flora and the host's immune system.[5] "Periodontal debridement includes instrumentation of every square millimeter of root surface for removal of plaque and calculus, but does not include deliberate, aggressive removal of cementum."[5] And, "instrumentation of every square millimeter of root surface" is technique-sensitive and highly demanding.[5]

As Drisko has noted, meticulous subgingival debridement is inherently a time-consuming and difficult procedure that usually requires scaling and root planing by manual instrumentation and/or sonic or ultrasonic scalers.[6] It also requires a great deal of stamina on the part of the clinician and patient.[6] Successful periodontal debridement also depends on the skill of the clinician and the attention to detail in instrumentation.[6-10]

Many studies have demonstrated that as probing depth increases, subgingival instrumentation becomes increasingly less effective at removing microbial plaque and calculus.[11-14] In cases exhibiting probing depths of >5 mm, it becomes increasingly difficult to perform complete removal of subgingival pathogenic bacteria and calculus by periodontal debridement.[15] As a result, incomplete removal of subgingival pathogenic bacteria results in recolonization and a continuation of the disease process.[16]

Major risks are associated with the failure to remove the critical mass of subgingival calculus and/or pathogenic plaque.[17-24] In addition to the fact that the inflammatory periodontal disease will continue, there is a potentially severe systemic effect to consider.[17-24] Given the developing body of evidence supporting a relationship between chronic periodontitis and an elevated risk for cerebrovascular accidents (stroke), cardiovascular disease, pulmonary disease (in the elderly), and preterm low birth weight delivery, the dental profession can no longer afford to ignore the diagnosis and proper treatment of inflammatory periodontal disease.[17-24]

Dentists and dental hygienists are ethically required to have as their first consideration the well-being of their patients.[25,26] In addition, practitioners must recognize their limitations in the care of patients; practice their profession with all the knowledge and ability of which they are capable; and recommend to patients, when indicated, that additional opinions and/or services may be necessary. Failure to inform a patient of the need for consultation and/or referral places the treating dentist in an untenable ethical position.

## How Scaling Assistants May Affect the Periodontists' Community

The MDA had proposed that the scope of practice for an RDT-2 include "periodontal root planing, debridement, and curettage for patients who are healthy or have early-to-moderate periodontal infections."[27] The MDA proposed that the only difference in the scope of practices of the RDT-2 and a registered dental hygienist should be that registered dental hygienists' scope of practice would include "treatment of advanced and refractory periodontitis."[27]

This seems to fly in the face of the American Academy of Periodontology 2020 Vision statement, which recommends that cases of early-to-moderate chronic periodontal disease be treated by dental hygienists and dentists, and that more

### Kudos to the Missouri Dental Hygienists' Association

Kudos to the Missouri Dental Hygienists' Association (MDHA) for the great negotiating skills that were demonstrated in creating what looks like what will be a win-win solution for all the parties involved. The MDHA held a Lobby Day in February 2005 with 250 dental hygienists and students in attendance. The official statement of the MDHA president, Debbi Polc, RDH, BSDH, follows (D. Bomkamp, electronic communication, Feb 2005)[2]:

*"In an effort to fulfill the need for dental hygienists in Missouri and avoid legislative conflict, representatives of MDHA and MDA have come to an agreement to develop a distance learning program. It will be an accredited, CODA-approved program with students taking the same national and clinical board exams as the traditional dental hygiene graduate.*

*"MDHA and MDA representatives are recommending a legislative appropriation to a state entity, which would work with a committee of three members of MDHA and three members of MDA. In a collaborative effort, a didactic and clinical program will be developed with the mission being to increase the number of licensed and registered dental hygienists in dental shortage areas of Missouri.*

*"Due to this agreement, and your contacting legislators in opposition to the scaling assistant bill, HB 142 is not likely to make it out of committee.*

*"Thank you for all of your hard work and we will keep you posted about the progress of this effort."*

severe cases and cases with systemic implication should be referred to periodontists.[28] How does this stratification of scope of practice affect the periodontists' community?

When the MDA referred to advanced periodontitis, we must assume they are referring to those cases with probing depths of ≥6 mm because pockets that have probing depths ≥6 mm are seldom treated successfully by scaling and root planing alone.[29-33] Most cases of advanced periodontitis are best treated by a combination of nonsurgical and surgical procedures.[34]

Surgical access to facilitate instrumentation of the involved root surface has been used to treat chronic periodontitis for several decades because it fulfills several goals[34]:

- Provides better access for removal of etiologic factors (eg, plaque, calculus, overhanging restoration margins, and tooth and bony anatomical defects).
- Reduction of probing depths.
- Regeneration or reconstruction of lost periodontal tissues (ie, bone and connective tissue).

Herein lies the rub. Registered dental hygienists cannot perform surgical procedures, so patients with more severe cases of periodontal disease may end up with compromised care because they are limited to nonsurgical care.

Also, *refractory periodontitis* is no longer recognized by periodontists as a distinct disease entity.[35] The MDA was likely referring to periodontitis that has recurred or did not respond to routine treatment techniques. Given this latter assumption and definition of refractory, it should be clear that such disease is beyond the training of both the RDT-2 and registered dental hygienist, and should be referred to a periodontist. Consequently, by removing refractory and most cases of advanced periodontitis from the scope of practice of the registered dental hygienist, the RDT-2 and registered dental hygienist become essentially the same, though they have very different educational and clinical requirements.

## The Argument for Systemic Wellness

With the mounting research that supports periodontal systemic associations and the number of intervention studies that places registered dental hygienists in the medical pathways of at-risk patients, a strong argument can be made that dental hygienists actually need more education, not less. Proposals like the MDA's appear very shortsighted in this regard. The importance of higher education for dental hygienists has never been as obvious as it is now.

> "The dental profession must continue to train and license only the properly educated dental hygienist."

Don Callan, DDS, a private practice periodontist and researcher in Little Rock, Arkansas, says it best (D. Callan, written communication, Feb 2005),

"Although periodontal diseases often are considered localized infections, there is increasing evidence linking periodontitis to systemic conditions, such as cardiovascular disease, respiratory diseases, and adverse pregnancy outcomes. In light of the high prevalence of periodontal disease, these associations may be important not only to individual patients, but in a public health context as well. Why put the general public at risk? Therefore, for the best interest of patients, clinicians must be well educated and technically competent. The dental profession must continue to train and license only the properly educated dental hygienist, since the general health of the patients may be at risk."

Thanks, Don, for joining the ranks of those dentists who can see the bigger picture. COH



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